

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[PA-4185; FRL-]

**Approval and Promulgation of Air Quality Implementation Plans; Pennsylvania; Post 1996
Rate-of-Progress Plan and One-Hour Ozone Attainment Demonstration for the
Philadelphia-Wilmington-Trenton Ozone Nonattainment Area**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The EPA is approving the State Implementation Plans (SIPs) consisting of the Post 1996 rate-of-progress (ROP) plans and the one-hour ozone attainment demonstration for the Philadelphia-Wilmington-Trenton severe nonattainment area (the Philadelphia area). These control strategy plans were submitted by the Pennsylvania Department of Environmental Protection (PADEP). The measures that have been adopted by the Commonwealth which comprise the control strategies of the Post-1996 ROP plans and the one-hour ozone attainment demonstration have and will result in significant emission reductions of volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) in the Philadelphia area. The intended effect of this action is to approve these SIP revisions as meeting the requirements of the Clean Air Act (CAA or the Act). The Philadelphia area is comprised of two counties in Delaware, one county in Maryland; seven counties in New Jersey, and five counties in Pennsylvania, namely Bucks, Chester, Delaware, Montgomery, and Philadelphia counties. Elsewhere in today's Federal Register, we are also taking final action on the one-hour ozone attainment demonstration SIP submittals from Maryland and Delaware for the Philadelphia area.

DATE: This final rule is effective on [Insert date 30-days from the date of publication in the Federal Register].

ADDRESSES: Copies of the documents relevant to this action are available for public inspection during normal business hours at the Air Protection Division, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103; Pennsylvania Department of Environmental Protection, Bureau of Air Quality, P.O. Box 8468, 400 Market Street, Harrisburg, Pennsylvania 17105.

FOR FURTHER INFORMATION CONTACT: Jill Webster, (215) 814-2033 at the EPA Region III office above Or by e-mail at Webster.Jill@epa.gov.

SUPPLEMENTARY INFORMATION:

This SUPPLEMENTARY INFORMATION section is organized to address the following questions:

- A. What action is EPA taking in this final rulemaking?**
- B. What previous action has been proposed on these SIP Revisions?**
- C. What were the conditions for approval provided in the Notice of Proposed Rulemaking for the attainment demonstration?**
- D. What amendments to the attainment demonstration SIP did Pennsylvania submit for the Philadelphia area since December 16, 1999?**
- E. What did the Supplemental Notices of Proposed Rulemaking cover?**

F. When did EPA make a determination regarding the adequacy of the Motor Vehicle Emissions Budgets for the Philadelphia area?

G. Upon what SIP elements did EPA need to take final action before or concurrently with full approval of the attainment demonstration could be granted?

H. What measures are in the control strategy for the Post 1996 plan and the attainment demonstration?

I. What are the approved transportation conformity budgets, and what effects does this action have on transportation planning?

J. What happens to the approved 2005 budgets when States change their budgets using the MOBILE6 Model?

K. What is the Status of Pennsylvania's New Source Review (SIP)?

L. What comments were received on the proposed approvals and how has EPA responded to them?

A. What action is EPA taking in this final rulemaking?

EPA is fully approving as meeting the requirements of section 182(c)(2) and (d) of the Act, the Post 1996 ROP plans and the one-hour attainment demonstration SIP, demonstrating attainment by November 2005, which were submitted by Pennsylvania for the Philadelphia area. The following tables identify submittal dates and amendment dates for the Post 1996 ROP plans and the attainment demonstration:

Table 1: Summary of Attainment Demonstration Submittal Dates		
	Date	Content
Initial submittal	April 30, 1998	Attainment demonstration

Amendment	August 21, 1998	Supplement to the Attainment Demonstration for Regional Scale Modeling
Amendment	February 25, 2000	Revised Motor Vehicle Emissions Budgets to Include Benefits from the National Low Emission Vehicle (NLEV) Program and Heavy Duty Diesel Engine (HDDE) Rule
Amendment	July 31, 1998 & February 25, 2000	Commitments to Adopt Needed Measures for Attainment
Amendment	July 19, 2001	Revised Motor Vehicle Emission Budgets to Include the Benefits from the Tier 2/Sulfur-in-fuel Rule
Amendment	July 19, 2001	Reasonably Available Control Measures Analysis

Table 2: Summary of Post-1996 ROP Plan Submittal Dates		
	Date	Content
Initial submittal	July 31, 1998	ROP thorough 1999
Initial submittal	April 30, 1998	ROP thorough 2005
Amendment	February 25, 2000	Revised Motor Vehicle Emissions Budgets to Include Benefits from the NLEV Program and HDDE Rule

B. What previous action has been proposed on these SIP revisions?

In a December 16, 1999 (64 FR 70428) notice of proposed rulemaking (the December 16, 1999 NPR), we proposed approval of Pennsylvania's 2005 attainment demonstration for the Philadelphia area .

On February 22, 2000 (65 FR 8703), EPA published a notice of availability on guidance memoranda relating to the ten one-hour ozone attainment demonstrations (including the

Philadelphia area) proposed for approval or conditional approval on December 16, 1999. The guidance memoranda are entitled: "Guidance on Motor Vehicle Emissions Budgets in One-Hour Ozone Attainment Demonstrations" dated November 3, 1999, and "Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas" dated November 30, 1999.

On July 28, 2000 (65 FR 46383), EPA published a supplemental notice of proposed rulemaking (SNPR) on the attainment demonstration. In that supplemental notice, we clarified and expanded on two issues relating to the motor vehicle emissions budgets in attainment demonstration SIP revisions. This supplemental notice is discussed in Section I.E. of this document.

On August 24, 2001 (66 FR 44568), EPA published a NPR proposing to approve Pennsylvania's Post 1996 plans for the Philadelphia area. We did not receive any comments on that NPR. In this final rulemaking action, we are approving the Post 1996 ROP plans submitted by Pennsylvania from 1996 through the 2005 attainment year.

On August 30, 2001 (66 FR 45797), EPA published a SNPR on the attainment demonstration. In that supplemental notice, we proposed to approve Pennsylvania's analysis and determination that there are no additional reasonably available control measures (RACM) for the area. We received no comments on that SNPR.

Comments received on the December 16, 1999 (64 FR 70428) and July 28, 2000 (65 FR 46383) proposed actions listed in this section relevant to the Philadelphia area attainment demonstration are discussed in Sections I. K. and II.

C. What were the conditions for approval provided in the Notice of Proposed Rulemaking for the attainment demonstration?

On December 16, 1999 (64 FR 70428), we proposed approval of the attainment demonstration submitted by the Commonwealth of Pennsylvania for the Philadelphia area. Our approval was contingent upon certain actions by Pennsylvania. These actions were to:

- (1) Adopt and submit adequate motor vehicle emissions budgets.
- (2) Submit a list of control measures that, when implemented, would be expected to provide sufficient additional emission reductions to further reduce emissions to support the attainment test and a commitment that these measures would not involve additional limits on highway construction beyond those that could be imposed under the submitted motor vehicle emissions budget.
- (3) Adopt and submit a rule(s) for the regional NO_x reductions consistent with the modeling demonstration.
- (4) Adopt and submit an enforceable commitment(s), or a reaffirmation of existing enforceable commitment to do the following:
 - (a) Submit measures by October 31, 2001 for additional emission reductions as required in the attainment demonstration test, and for additional emission reduction measures developed through the regional process, submit an enforceable commitment for the additional measures and

a backstop commitment to adopt and submit intrastate measures for the emission reductions in the event the regional process does not recommend measures that produce emission reductions.

(b) Submit a revised SIP & motor vehicle emissions budget by October 31, 2001 if additional measures affect the motor vehicle emissions inventory.

(c) Submit revised SIP and motor vehicle emissions budgets 1 year after MOBILE6 issued.

(d) Perform a mid-course review by December 31, 2001.

D. What amendments to the attainment demonstration SIP did Pennsylvania submit for the Philadelphia area since December 16, 1999?

Since December 16, 1999, Pennsylvania has submitted a number of amendments to the Pennsylvania SIP for Philadelphia:

(1) On February 25, 2000, the Commonwealth submitted the "State Implementation Plan Revision to the Philadelphia Ozone Nonattainment Area" dated January, 2000. This submittal contained the revised motor vehicle emissions budgets for the Post 1996 ROP plans and the attainment demonstration. The revised motor vehicle emissions budgets reflected the benefits achieved from the NLEV program and the HDDE rule.

(2) In the February 25, 2000 submittal, the Commonwealth included a commitment to revise the motor vehicle emissions budgets within one year after the official release of the MOBILE 6 model.

(3) On February 25, 2000, the Commonwealth also submitted a letter reaffirming a previous commitment to adopt additional measures needed to reach attainment by October 31, 2001 and to revise the SIP and motor vehicle emissions budgets by October 31, 2001 if the additional

measures affect the motor vehicle emissions inventory in accordance with the requirements of the CAA. In its February 25, 2000 letter, the Commonwealth enclosed a copy of the Southeastern Pennsylvania's Stakeholder's report which includes a list of potential control measures that the work group identified and considered during the Stakeholder's process.

(2) On July 19, 2001 the Commonwealth submitted a revision to its 2005 attainment demonstration SIP which includes revised attainment year motor vehicle emissions budgets for the Philadelphia area. The revised motor vehicle emissions budgets reflect the benefits of the Tier 2/Sulfur rule estimated for the Philadelphia area. The Commonwealth also included in the July 19, 2001 submittal a formal SIP commitment to perform a mid course review by December 31, 2003.

(3) On July 19, 2001, the Commonwealth also submitted a supplement to its 2005 attainment demonstration SIP submittal consisting of a RACM analysis and determination.

E. What did the Supplemental Notices of Proposed Rulemaking cover?

(1) On July 28, 2000, EPA published a supplemental notice of proposed rulemaking (SNPR) on the 2005 attainment demonstration (65 FR 46383). In that supplemental notice, we clarified and expanded on two issues relating to the motor vehicle emissions budgets in this attainment demonstration SIP revision:

(a) First, we proposed a clarification of what occurs if we finalize conditional or full approval of this and certain other attainment demonstration SIP revisions based on a state commitment to revise the SIP's motor vehicle emissions budgets in the future. Under the proposal, the motor vehicle emissions budgets in the approved SIP will apply for transportation conformity purposes only until the budgets are revised consistent with the commitment and we

have found the new budgets adequate. Once we have found the newly revised budgets adequate, then they would apply instead of the previous conditionally or fully approved budgets.

Normally, revisions to approved budgets cannot be used for conformity purposes until we approve the revised budgets into the SIP. Therefore, we proposed to clarify that when our approval of this and certain other 1-hour ozone attainment demonstrations is based on a commitment to future revisions to the budget, our approval of the budget lasts only until revisions to satisfy those conditions are submitted and we find them adequate.

(b) Second, we proposed that States may opt to commit to revise their emissions budgets 1 year after the release of the MOBILE6 model, as originally proposed on December 16, 1999; or, States may commit to a new option, i.e., to revise their budgets 2 years following the release of the MOBILE6 model, provided that conformity is not determined without adequate MOBILE6-derived SIP budgets during the second year. This second option did not affect the Philadelphia area because Pennsylvania has submitted an enforceable commitment to revise the motor vehicle emissions budgets within one year after the official release of the MOBILE6 model.

(c) In addition, we reopened the comment period to take comment on these two issues and to allow comment on any additional materials that were placed in the dockets for the proposed actions, close to or after the initial comment period closed on February 14, 2000 (65 FR at 46383, July 28, 2000). For many of the areas, additional information had been placed in the docket close to or since the initial comment period concluded. In general, these materials were identified as consisting of motor vehicle emissions budgets, and revised or additional commitments or reaffirmations submitted by the States (65 FR at 46387, July 28, 2000).

(2) On August 24, 2001 (66 FR 44571), EPA published a SNPR for Pennsylvania's attainment demonstration for the Philadelphia area. In that supplemental notice, we proposed to approve Pennsylvania's revision to the motor vehicle emissions budgets for the attainment year of 2005 which reflected the benefits of the Federal Tier 2/Sulfur rule. In that SNPR, we also proposed to approve the Commonwealth's formal SIP commitment to perform a mid-course review by December 31, 2003. We received no comments on that SNPR.

(3) As noted earlier, on August 24, 2001 (66 FR 44568), EPA published a NPR proposing to approve Pennsylvania's Post 1996 plans for the Philadelphia area. We did not receive any comments on that NPR. In this final rulemaking action, we are approving the Post 1996 ROP plans submitted by Pennsylvania from 1996 through the 2005 attainment year.

(4) On August 30, 2001 (66 FR 45797), EPA published a SNPR on the attainment demonstration. In that supplemental notice, we proposed to approve Pennsylvania's RACM analysis and determination for the Philadelphia area. We received no comments on that SNPR.

F. When did EPA make a determination regarding the adequacy of the attainment motor vehicle emissions budgets for the Philadelphia area?

Pennsylvania submitted a revision to the attainment plan SIP for the Philadelphia area on July 19, 2001. This revision contained revised motor vehicle emissions budgets for the attainment year of 2005 that reflected the benefits of the Federal Tier 2/Sulfur rule.¹

¹In the December 16, 1999 NPR, we proposed to disapprove the attainment demonstration if Pennsylvania did not submit motor vehicle emissions budgets for this area that EPA could find adequate by May 31, 2000 (see 64 FR at 70433). The budgets subject to this May 31, 2000 deadline did not necessarily have to account for Federal Tier 2/Sulfur rule reductions. On February 25, 2000 Pennsylvania submitted a SIP revision that included motor vehicle emissions budgets for the 2005 attainment year that did not include the benefits of the Federal Tier 2/Sulfur

On August 24, 2001 (66 FR 44571), we proposed to approve and proposed to find adequate the budgets in Pennsylvania's July 19, 2001 submittal of the revised attainment plan. Our August 24, 2001 proposed rulemaking opened a public comment period to take comment on the approvability and adequacy of the budgets. No public comments were received pursuant to the August 24, 2001 proposed rulemaking. We are full approving and making a determination of adequacy in this final rule for the budgets for the Pennsylvania portion of the Philadelphia area submitted on July 19, 2001.

Pennsylvania has an acceptable commitment to revise the attainment year motor vehicle emissions budgets using the MOBILE6 model within one year after the release of the MOBILE6 model, and EPA is approving that commitment in this final rulemaking.

G. Upon what SIP elements did EPA need to take final action before full approval of the attainment demonstration could be granted?

In the December 16, 1999 NPR for the Pennsylvania attainment demonstration SIP, EPA noted in Tables 3 through 6 the status of many of the control measures or part D requirements of the Act for serious and severe areas. The following provides the status of those SIP elements which are relied on in the attainment demonstration but which were not fully approved as of December 16, 1999:

- (1) On December 28, 1999, EPA approved Pennsylvania's NLEV SIP (64 FR 72564).

rule. EPA had determined that these budgets were adequate by the May 31, 2000 deadline (June 8, 2000 at 65 FR 36438). Our findings of adequacy and responses to comments can be accessed at www.epa.gov/otaq/traq (once there, click on the "conformity" button).

- (2) On June 6, 2000, EPA approved Pennsylvania's NOx OTC MOU Phase II rule (65 FR 35842).
- (3) On August 21, 2001, EPA approved Pennsylvania's NOx Budget Rule (66 FR 43795).
- (4) On August 24, 2001, EPA approved Pennsylvania's, 15 percent VOC Reduction Plan (66 FR 44547).
- (5) On October 15, 2001, EPA signed a final rule converting its limited approval of Pennsylvania's generic NOx and VOC RACT regulations to a full approval as they apply in the Philadelphia area. This final rule has been or will be published in the Federal Register in the near future.

As stated previously, in this final rulemaking action, we are approving the Post 1996 ROP plans submitted by Pennsylvania from 1996 through the 2005 attainment year. These plans demonstrate ROP for milestone years 1999, 2002, and 2005.

H. What measures are in the control strategy for the Post-1996 plans and the attainment demonstration?

Table 3: Control Measures in the 1-Hour Ozone Post-1996 ROP and Attainment Demonstration for the Philadelphia Nonattainment Area			
Control Measure	Type of Measure	Credited in Post-1996 Plan for which Milestone Years	Credited in Attainment Plan
Enhanced Inspection & Maintenance	Approved SIP	Yes - 1999 through 2005	Yes
Federal Motor Vehicle Control program	Federal	Tier 1 - 1999 through 2005	Tier 1 and 2

Table 3: Control Measures in the 1-Hour Ozone Post-1996 ROP and Attainment Demonstration for the Philadelphia Nonattainment Area

Control Measure	Type of Measure	Credited in Post-1996 Plan for which Milestone Years	Credited in Attainment Plan
NLEV ¹	Approved SIP opt-in	Yes - 1999 through 2005	Yes
Reformulated Gasoline (Phase 1 & 2)	Federal	Phase 1 - 1999 Phase 2 - 2002 and 2005	Phase 2
Federal Non-road Gasoline Engine standards	Federal	Yes - 1999 through 2005	Yes
Federal Non-road Heavy Duty diesel engine standards	Federal	Yes - 1999 through 2005	Yes
NOx RACT	Approved SIP	Yes - 1999 through 2005	Yes
VOC RACT	Approved SIP	Yes - 1999 through 2005	Yes
Stage II Vapor Recovery & On-board Refueling Vapor Recovery (ORVR)	Approved SIP Federal	Yes - 1999 through 2005	Yes
AIM Surface Coatings	Federal	Yes - 1999 through 2005	Yes
Consumer & commercial products	Federal	Yes - 1999 through 2005	Yes
Rule Effectiveness for Point Sources ²	Approved SIP	Yes - 1999 through 2005	Yes
Shutdowns ²	Approved SIP	Yes - 1999 through 2005	Yes
Autobody refinishing	Federal/Approved SIP	Yes - 1999 through 2005	Yes
Treatment, Storage, and Disposal Facilities	Federal	Yes - 1999 through 2005	Yes
Heavy Duty Diesel Engines (On-road)	Federal	Yes - 2005	Yes

Table 3: Control Measures in the 1-Hour Ozone Post-1996 ROP and Attainment Demonstration for the Philadelphia Nonattainment Area			
Control Measure	Type of Measure	Credited in Post-1996 Plan for which Milestone Years	Credited in Attainment Plan
Beyond RACT NO _x Requirements on Utilities	Approved SIP	Yes - 1999 through 2005	Yes
Notes: 1. To the extent NLEV not superceded by Tier 2. 2. These state initiatives and credits are approved as part the of the Post-96 ROP plan.			

I. What are the approved transportation conformity budgets, and what effects does this action have on transportation planning?

(1) What are the approved transportation conformity budgets in the Post-1996 ROP plan and the attainment demonstration?

EPA has determined that the budgets in the Post-1996 ROP plan and the attainment demonstration are adequate. In this action EPA is approving these budgets which are listed in Table 4. by type of control strategy SIP². Table 4. also provides the amounts of the budgets in tons per day (TPD), the year associated with the budgets, and the effective date of EPA's adequacy determination for those budgets.

Table 4: Transportation Conformity Budgets for the Philadelphia Area

Control Strategy SIP	Year	VOC TPD	NO_x TPD	Date of Adequacy Determination
Post-1996 ROP Plan	1999	88.6	109.6	June 23, 2000 (65 FR 36438, June 8, 2000)
Post-1996 ROP Plan	2002	69.52	93.13	June 23, 2000 (65 FR 36438, June 8, 2000)
Post-1996 ROP Plan	2005	61.76	86.42	June 23, 2000 (65 FR 36438, June 8, 2000)

² Note that the 2005 ROP budgets do not include the Federal Tier2/sulfur rule benefits. The 2005 attainment budgets do include the Federal Tier2/sulfur rule benefits.

				8, 2000)
Attainment Demonstration	2005	60.18	77.46	<u>[Insert date 30-days from the date of publication in the Federal Register]</u>

For a conformity analysis for year 2005, conformity must be shown to both sets of 2005 budgets, which effectively means that conformity must be demonstrated to the lower of the 2005 budgets. For conformity analysis year for any year after 2005, the attainment demonstration budgets are the applicable budgets.

EPA has concluded that these SIP revisions meet the requirements of the CAA applicable to the type of control strategy SIP, that is, demonstrates attainment or ROP, with the applicable budgets and contains the measures necessary to support these budgets. In this final action, EPA is approving these budgets.

(2) Is a requirement to redetermine conformity within 18-months under section 93.104 of the conformity rule triggered?

Our conformity rule establishes the frequency by which transportation plans and transportation improvement programs must be found to conform to the SIP and includes trigger events tied to both submittal and approval of a SIP (40 CFR 93.104(e)). Both initial submission and initial approval trigger a redetermination of conformity. This final rule approves motor vehicle emissions budgets contained in the attainment demonstration and the Post 1996 ROP plans. We are advising affected transportation planning agencies that this final approval of the budgets in listed in Table 3 will require a re-determination that existing transportation plans and TIPs

conform within 18 months of the effective date listed in the DATE Section of this document.

See 40 CFR 93.104(e).

(3) What happens to the Prior Restrictions on the Use of the Benefits of Federal Tier 2/Sulfur Rule in Conformity Determinations

In our December 16, 1999 NPR, we allowed States to submit motor vehicle emissions budgets that did not reflect the benefits of EPA's Tier 2/Sulfur rule. In that NPR, we explained that conformity analyses in the Pennsylvania portion of the Philadelphia area could begin including Tier 2/Sulfur program benefits once EPA's Tier 2/Sulfur rule was promulgated, provided that the attainment demonstration SIP and associated motor vehicle emissions budgets include the Tier 2/Sulfur benefits. For an area that requires all or some portion of the Tier 2/Sulfur benefits to demonstrate attainment but had not yet included the benefits in the motor vehicle emissions budgets, we noted that our adequacy finding will include a condition that conformity determinations may not take credit for Tier 2/Sulfur until the SIP budgets are revised to reflect Tier 2/Sulfur benefits.

On February 25, 2000, the Commonwealth submitted 2005-year motor vehicle emissions budgets for the Pennsylvania portion of the Philadelphia area that did not include the benefits from the Tier 2/Sulfur rule. These 2005-year motor vehicle emissions budgets applied to two separate types of control strategy SIP revisions: (1) rate-of-progress and (2) attainment.

On May 31, 2000 (Letter from Katz to Salvaggio), EPA notified PADEP that the motor vehicle emissions budgets submitted on February 25, 2000 were adequate (see 65 FR 36438, June 8,

2000). That adequacy finding included a condition precluding the use of the emission reduction benefits from the Tier 2/Sulfur rule in conformity determinations.

As previously explained, on July 19, 2001, the Commonwealth submitted revised motor vehicle emissions budgets for the 2005 attainment demonstration SIP for the Pennsylvania portion of the Philadelphia area that did include the benefits from the Tier 2/Sulfur rule. We are approving the revised motor vehicle emissions budgets submitted by the Commonwealth on July 19, 2001 (which now reflect the Tier 2/Sulfur rule benefits). On (insert 30 days from publication), the effective date of this approval of the 2005-year attainment motor vehicle emissions budgets submitted by Pennsylvania on July 19, 2001, supplant those attainment motor vehicle emissions budgets submitted on February 25, 2000, and become the budgets for the Pennsylvania portion of the Philadelphia area to which all future transportation plans and transportation improvement programs (TIPs) must conform (until replaced by the revised budgets discussed in Section I. J.); and the restriction on the use of the benefits from the Federal Tier 2/Sulfur rule in a conformity determination is removed.

J. What happens to the approved 2005 budgets when States change their budgets using the MOBILE6 Model?

All states whose attainment demonstration includes the effects of the Tier 2/sulfur program have committed to revise and resubmit their motor vehicle emissions budgets after EPA releases the MOBILE6 model. On February 25, 2000, Pennsylvania submitted a commitment to revise the 2005 motor vehicle budgets in the attainment demonstration within one year of EPA's release of the MOBILE6 model. In this action, EPA is approving this commitment to revise the 2005

motor vehicle budgets in the attainment demonstration within one year of EPA's release of the MOBILE6 model. If Pennsylvania fails to meet its commitment to submit revised budgets using the MOBILE6 model, EPA could make a finding of failure to implement the SIP, which would start a sanctions clock under section 179 of the Act.

As we proposed in our July 28, 2000 SNPR (65 FR 46383), today's final approval of the budgets contained in the 2005 attainment plan will be effective for conformity purposes only until such time as revised motor vehicle emissions budgets are submitted (pursuant to the commitment to submit revised budgets using the MOBILE6 model within one year of EPA's release of that model) and we have found those revised budgets adequate. We are only approving the attainment demonstration and its current budgets because Pennsylvania has provided an enforceable commitment to revise the budgets using the MOBILE6 model within one year of EPA's release of that model. Therefore, we are limiting the duration of our approval of the current budgets only until such time as the revised budgets are found adequate. Those revised budgets will be more appropriate than the budgets we are approving for conformity purposes for the time being.

Similarly, EPA is only approving the 2005 attainment demonstration and its current budgets because Pennsylvania has provided an enforceable commitment to submit new budgets as a revision to the attainment SIP consistent with any new measures submitted to fill any shortfall, if the additional control measures affect on-road motor vehicle emissions. Therefore, EPA is limiting the duration of our approval of the current budgets only until such time as any such

revised budgets are found adequate. Those revised budgets will be more appropriate than the budgets we are approving for conformity purposes for the time being.

K. What is the Status of Pennsylvania's New Source Review (SIP)?

The EPA approved the Commonwealth's NSR program on December 9, 1997 (62 FR 64722). As stated in the preamble of the proposed (62 FR 25060, May 2, 1997) and final rulemaking notices, EPA's approval was limited in nature. EPA's sole reason for granting limited approval rather than full approval of Pennsylvania's NSR regulations was that they do not contain certain restrictions on the use of emission reductions from the shutdown and curtailment of existing sources or units as NSR offsets. These restrictions, however, only apply in nonattainment areas without an approved attainment demonstration [see 40 CFR Part 51.165(a)(ii)(C)]. As EPA is, today, taking final action to approve Pennsylvania's attainment demonstration SIP for the Philadelphia area, the Commonwealth's SIP-approved NSR program's lack of restrictions on the use of emission reductions from the shutdown and curtailment of existing sources or units as NSR offsets, applicable only in nonattainment areas without an approved attainment demonstration, is a moot issue. EPA has already removed the limited nature of its approval of Pennsylvania's NSR program in all areas of the Commonwealth except for its portion of the Philadelphia area (Philadelphia, Delaware, Chester, Montgomery, and Bucks counties). Now that we have approved the attainment demonstration for the Philadelphia area, we intend to remove the limited nature of our approval of the Pennsylvania NSR program in Philadelphia, Delaware, Chester, Montgomery, and Bucks counties as well.

L. What comments were received on the proposed approvals and how has EPA responded to them?

EPA received comments from the public on the Notice of Proposed Rulemaking (NPR) published on December 16, 1999 (64 FR 70428) for Pennsylvania's ozone attainment demonstration. Comments were received from Robert E. Yuhnke on behalf of Environmental Defense and Natural Resources Defense Council; the Midwest Ozone Group; the Clean Air Council; The Pennsylvania Chapter of the Sierra Club; and from PECO Energy. See Section II. of this document for a summary of these comments and EPA responses relevant to our approval of the Commonwealth's 2005 attainment demonstration.

EPA also received comments from the public on the supplemental notice of proposed rulemaking published on July 28, 2000 (65 FR 46383) on the attainment demonstrations, in which EPA clarified and expanded on two issues relating to the motor vehicle emissions budgets in the attainment demonstration SIPs. Comments were received from Environmental Defense, from ELM Packaging Co. and Citizens for Pennsylvania's Future (PennFuture). See Section II. of this document for a summary of these comments and EPA responses relevant to our approval of the Commonwealth's 2005 attainment demonstration for the Philadelphia area.

We did not receive comments on our August 24, 2001 (66 FR 44568) proposed approval of the Commonwealth's Post 1996 plans. Nor did we receive comments on our August 24, 2001 (66 FR 44571) SNPR for Pennsylvania's 2005 attainment demonstration, wherein we proposed to approve Pennsylvania's revision to the motor vehicle emissions budgets for the attainment

year of 2005 which reflected the benefits of the Federal Tier 2/Sulfur rule and the Commonwealth's formal SIP commitment to perform a mid-course review by December 31, 2003. Lastly, we did not receive comments on our August 30, 2001 (66 FR 45797) SNPR on the Commonwealth's 2005 attainment demonstration, wherein we proposed to approve Pennsylvania's RACM analysis and determination for the area.

II. Response to Comments

The following discussion summarizes and responds to the comments received on our on December 16, 1999 (64 FR 70428) and July 28, 2000 (65 FR 46383) proposed actions on the Commonwealth's 2005 attainment demonstration SIP for the one hour ozone standard. These are the only proposed actions for which we received comments.

A. Attainment Demonstration -- Weight of Evidence

Comment 1: The weight of evidence approach does not demonstrate attainment or meet CAA requirements for a modeled attainment demonstration. Commenters added several criticisms of various technical aspects of the weight of evidence approach, including certain specific applications of the approach to particular attainment demonstrations. These comments are discussed in the following response.

Response 1: Under section 182(c)(2) and (d) of the CAA, serious and severe ozone nonattainment areas were required to submit by November 15, 1994, demonstrations of how they would attain the 1-hour standard. Section 182(c)(2)(A) provides that "[t]his attainment demonstration must be based on photochemical grid modeling or any other analytical method

determined by the Administrator, in the Administrator's discretion, to be at least as effective."

As described in more detail below, the EPA allows states to supplement their photochemical modeling results, with additional evidence designed to account for uncertainties in the photochemical modeling, to demonstrate attainment. This approach is consistent with the requirement of section 182(c)(2)(A) that the attainment demonstration "be based on photochemical grid modeling," because the modeling results constitute the principal component of EPA's analysis, with supplemental information designed to account for uncertainties in the model. This interpretation and application of the photochemical modeling requirement of section 182(c)(2)(A) finds further justification in the broad deference Congress granted EPA to develop appropriate methods for determining attainment, as indicated in the last phrase of section 182(c)(2)(A).

The flexibility granted to EPA under section 182(c)(2)(A) is reflected in the regulations EPA promulgated for modeled attainment demonstrations. These regulations provide, "The adequacy of a control strategy shall be demonstrated by means of applicable air quality models, data bases, and other requirements specified in [40 CFR part 51 Appendix W] (Guideline on Air Quality Models)."³ 40 CFR 51.112(a)(1). However, the regulations further provide, "Where an air quality model specified in appendix W...is inappropriate, the model may be modified or another model substituted [with approval by EPA, and after] notice and opportunity for public comment...." Appendix W, in turn, provides that, "The Urban Airshed Model (UAM) is

³The August 12, 1996 version of "Appendix W to Part 51 –Guideline on Air Quality Models" was the rule in effect for these attainment demonstrations. EPA is proposing updates to this rule, that will not take effect until the rulemaking process for them is complete.

recommended for photochemical or reactive pollutant modeling applications involving entire urban areas,” but further refers to EPA’s modeling guidance for data requirements and procedures for operating the model. 40 CFR 51 App. W section 6.2.1.a. The modeling guidance discusses the data requirements and operating procedures, as well as interpretation of model results as they relate to the attainment demonstration. This provision references guidance published in 1991, but EPA envisioned the guidance would change as we gained experience with model applications, which is why the guidance is referenced, but does not appear, in Appendix W. With updates in 1996 and 1999, the evolution of EPA’s guidance has led us to use both the photochemical grid model, and additional analytical methods approved by EPA.

The modeled attainment test compares model predicted 1-hour daily maximum ozone concentrations in all grid cells for the attainment year to the level of the NAAQS. The results may be interpreted through either of two modeled attainment or exceedance tests: the deterministic test or the statistical test. Under the deterministic test, a predicted concentration above 0.124 parts per million (ppm) ozone indicates that the area is expected to exceed the standard in the attainment year and a prediction at or below 0.124 ppm indicates that the area is expected to not exceed the standard. Under the statistical test, attainment is demonstrated when all predicted (i.e., modeled) 1-hour ozone concentrations inside the modeling domain are at, or below, an acceptable upper limit above the NAAQS permitted under certain conditions (depending on the severity of the episode modeled).⁴

⁴ Guidance on the Use Of Modeled Results to Demonstrate Attainment of the Ozone NAAQS. EPA- 454/B-95-007, June 1996.

In 1996, EPA issued guidance⁵ to update the 1991 guidance referenced in 40 CFR 51 Appendix W, to make the modeled attainment test more closely reflect the form of the NAAQS (i.e., the statistical test described above), to consider the area's ozone design value and the meteorological conditions accompanying observed exceedances, and to allow consideration of other evidence to address uncertainties in the modeling databases and application. When the modeling does not conclusively demonstrate attainment, EPA has concluded that additional analyses may be presented to help determine whether the area will attain the standard. As with other predictive tools, there are inherent uncertainties associated with air quality modeling and its results. The inherent imprecision of the model means that it may be inappropriate to view the specific numerical result of the model as the only determinant of whether the SIP controls are likely to lead to attainment. The EPA's guidance recognizes these limitations, and provides a means for considering other evidence to help assess whether attainment of the NAAQS is likely to be achieved. The process by which this is done is called a weight of evidence (WOE) determination. Under a WOE determination, the state can rely on, and EPA will consider in addition to the results of the modeled attainment test, other factors such as other modeled output (e.g., changes in the predicted frequency and pervasiveness of 1-hour ozone NAAQS exceedances, and predicted change in the ozone design value); actual observed air quality trends (i.e. analyses of monitored air quality data); estimated emissions trends; and the responsiveness of the model predictions to further controls.

⁵ Ibid.

In 1999, EPA issued additional guidance⁶ that makes further use of model results for base case and future emission estimates to predict a future design value. This guidance describes the use of an additional component of the WOE determination, which requires, under certain circumstances, additional emission reductions that are or will be approved into the SIP, but that were not included in the modeling analysis, that will further reduce the modeled design value. An area is considered to monitor attainment if each monitor site has air quality observed ozone design values (4th highest daily maximum ozone using the three most recent consecutive years of data) at or below the level of the standard. Therefore, it is appropriate for EPA, when making a determination that a control strategy will provide for attainment, to determine whether or not the model predicted future design value is expected to be at or below the level of the standard. Since the form of the 1-hour NAAQS allows exceedances, it did not seem appropriate for EPA to require the test for attainment to be "no exceedances" in the future model predictions.

The method outlined in EPA's 1999 guidance uses the highest measured design value across all sites in the nonattainment area for each of three years. These three "design values" represent the air quality observed during the time period used to predict ozone for the base emissions. This is appropriate because the model is predicting the change in ozone from the base period to the future attainment date. The three yearly design values (highest across the area) are averaged to account for annual fluctuations in meteorology. The result is an estimate of an area's base year

⁶ "Guidance for Improving Weight of Evidence Through Identification of Additional Emission Reductions, Not Modeled." U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Emissions, Monitoring, and Analysis Division, Air Quality Modeling Group, Research Triangle Park, NC 27711. November 1999. Web site: <http://www.epa.gov/ttn/scram>.

design value. The base year design value is multiplied by a ratio of the peak model predicted ozone concentrations in the attainment year (i.e., average of daily maximum concentrations from all days modeled) to the peak model predicted ozone concentrations in the base year (i.e., average of daily maximum concentrations from all days modeled). The result is an attainment year design value based on the relative change in peak model predicted ozone concentrations from the base year to the attainment year. Modeling results also show that emission control strategies designed to reduce areas of peak ozone concentrations generally result in similar ozone reductions in all core areas of the modeling domain, thereby providing some assurance of attainment at all monitors.

In the event that the attainment year design value is above the standard, the 1999 guidance provides a method for identifying additional emission reductions, not modeled, which at a minimum provide an estimated attainment year design value at the level of the standard. This step uses a locally derived factor which assumes a linear relationship between ozone and the precursors.

A commenter criticized the 1999 guidance as flawed on grounds that it allows the averaging of the three highest air quality sites across a region, whereas EPA's 1991 and 1996 modeling guidance requires that attainment be demonstrated at each site. This has the effect of allowing lower air quality concentrations to be averaged against higher concentrations thus reducing the total emission reduction needed to attain at the higher site. The commenter does not appear to have described the guidance accurately. The guidance does not recommend averaging across a region or spatial averaging of observed data. The guidance does recommend determination of

the highest site in the region for each of the three-year periods, determined by the base year modeled. For example, if the base year is 1990, it is the amount of emissions in 1990 that must be adjusted or evaluated (by accounting for growth and controls) to determine whether attainment results. These 1990 emissions would contribute to three design value periods (1988-90, 1989-91 and 1990-92).

Under the approach of the guidance document, EPA determined the design value for each of those three-year periods, and then averaged those three design values, to determine the base design value. This approach is appropriate because, as just noted, the 1990 emissions contributed to each of those periods, and there is no reason to believe the 1990 (episodic) emissions resulted in the highest or lowest of the three design values. Averaging the three years is beneficial for another reason: It allows consideration of a broader range of meteorological conditions--those that occurred throughout the 1988-1992 period, rather than the meteorology that occurs in one particular year or even one particular ozone episode within that year. Furthermore, EPA relied on three-year averaging only for purposes of determining one component, i.e. -- the small amount of additional emission reductions not modeled -- of the WOE determination. The WOE determination, in turn, is intended to be part of a qualitative assessment of whether additional factors (including the additional emissions reductions not modeled), taken as a whole, indicate that the area is more likely than not to attain.

A commenter criticized the component of this WOE factor that estimates ambient improvement because it does not incorporate complete modeling of the additional emissions reductions. However, the regulations do not mandate, nor does EPA guidance suggest, that States must

model all control measures being implemented. Moreover, a component of this technique—the estimation of future design value—should be considered a model-predicted estimate. Therefore, results from this technique are an extension of “photochemical grid” modeling and are consistent with Section 182(c)(2)(A). Also, a commenter believes that EPA has not provided sufficient opportunity to evaluate the calculations used to estimate additional emission reductions. EPA provided a full 60-day period for comment on all aspects of the proposed rule. EPA has received several comments on the technical aspects of the approach and the results of its application, as discussed above and in the responses to the individual SIPs.

A commenter states that application of the method of attainment analysis used for the December 16, 1999 NPRs will yield a lower control estimate than if we relied entirely on reducing maximum predictions in every grid cell to less than or equal to 124 ppb on every modeled day. However, the commenter’s approach may overestimate needed controls because the form of the standard allows up to 3 exceedances in 3 years in every grid cell. If the model over predicts observed concentrations, predicted controls may be further overestimated. EPA has considered other evidence, as described above through the weight of evidence determination.

When reviewing a SIP, the EPA must make a determination that the control measures adopted are reasonably likely to lead to attainment. Reliance on the WOE factors allows EPA to make this determination based on a greater body of information presented by the States and available to EPA. This information includes model results for the majority of the control measures. Although not all measures were modeled, EPA reviewed the model’s response to changes in emissions as well as observed air quality changes to evaluate the impact of a few additional

measures, not modeled. EPA's decision was further strengthened by each State's commitment to check progress towards attainment in a mid-course review and to adopt additional measures, if the anticipated progress is not being made.

A commenter further criticized EPA's technique for estimating the ambient impact of additional emissions reductions not modeled on grounds that EPA employed a "rollback" modeling technique that, according to the commenter, is precluded under EPA regulations. The commenter explained that 40 CFR 51 App. W section 6.2.1.e. provides, "Proportional (rollback/forward) modeling is not an acceptable procedure for evaluating ozone control strategies." Section 14.0 of appendix W defines "rollback" as "a simple model that assumes that if emissions from each source affecting a given receptor are decreased by the same percentage, ambient air quality concentrations decrease proportionately." Under this approach if 20% improvement in ozone is needed for the area to reach attainment, it is assumed a 20% reduction in VOC would be required. There was no approach for identifying NOx reductions.

The "proportional rollback" approach is based on a purely empirically/mathematically derived relationship. EPA did not rely on this approach in its evaluation of the attainment demonstrations. The prohibition in Appendix W applies to the use of a rollback method which is empirically/mathematically derived and independent of model estimates or observed air quality and emissions changes as the sole method for evaluating control strategies. For the demonstrations under proposal, EPA used a locally derived (as determined by the model and/or observed changes in air quality) ratio of change in emissions to change in ozone to estimate

additional emission reductions to achieve an additional increment of ambient improvement in ozone.

For example, if monitoring or modeling results indicate that ozone was reduced by 25 ppb during a particular period, and that VOC and NOx emissions fell by 20 tons per day and 10 tons per day respectively during that period, EPA developed a ratio of ozone improvement related to reductions in VOC and NOx. This formula assumes a linear relationship between the precursors and ozone for a small amount of ozone improvement, but it is not a "proportional rollback" technique. Further, EPA uses these locally derived adjustment factors as a component to estimate the extent to which additional emissions reductions -- not the core control strategies -- would reduce ozone levels and thereby strengthen the weight of evidence test. EPA uses the UAM to evaluate the core control strategies.

This limited use of adjustment factors is more technically sound than the unacceptable use of proportional rollback to determine the ambient impact of the entire set of emissions reductions required under the attainment SIP. The limited use of adjustment factors is acceptable for practical reasons: it obviates the need to expend more time and resources to perform additional modeling. In addition, the adjustment factor is a locally derived relationship between ozone and its precursors based on air quality observations and /or modeling which is more consistent with recommendations referenced by Appendix W and does not assume a direct proportional relationship between ozone and its precursors. Lastly, the requirement that areas perform a mid-course review (a check of progress toward attainment) provides a margin of safety.

A commenter expressed concerns that EPA used a modeling technique (proportional rollback) that was expressly prohibited by 40 CFR part 51 Appendix W, without expressly proposing to do so in a notice of proposed rulemaking. However, the commenter is mistaken. As explained above, EPA did not use or rely upon a proportional rollback technique in this rulemaking, but used UAM to evaluate the core control strategies and then applied its WOE guidance. Therefore, because EPA did not use an “alternative model” to UAM, it did not trigger an obligation to modify Appendix W. Furthermore, EPA did propose the use the November 1999 guidance “Guidance for Improving Weight of Evidence Through Identification of Additional Emission Reductions, Not Modeled.” in the December 16, 1999 NPR and has responded to all comments received on that guidance elsewhere in this document.

A commenter also expressed concern that EPA applied unacceptably broad discretion in fashioning and applying the WOE determinations. For all of the attainment submittals proposed for approval in December 1999 concerning serious and severe ozone nonattainment areas, EPA first reviewed the UAM results. In all cases, the UAM results did not pass the deterministic test. In two cases – Milwaukee and Chicago – the UAM results passed the statistical test; in the rest of the cases, the UAM results failed the statistical test. The UAM has inherent limitations that, in EPA’s view, were manifest in all these cases. These limitations include: (1) only selected time periods were modeled, not the entire three-year period used as the definitive means for determining an area’s attainment status; (2) inherent uncertainties in the model formulation and model inputs such as hourly emission estimates, emissions growth projections, biogenic emission estimates, and derived wind speeds and directions. As a result, for all areas, even Milwaukee and Chicago, EPA examined additional analyses to indicate whether additional SIP

controls would yield meaningful reductions in ozone values. These analyses did not point to the need for additional emission reductions for Springfield, Greater Connecticut, Metropolitan Washington DC, Chicago and Milwaukee, but did point to the need for additional reductions, in varying amounts, in the other areas. As a result, the other areas submitted control requirements to provide the indicated level of emissions reductions. EPA applied the same methodology in these areas, but because of differences in the application of the model to the circumstances of each individual area, the results differed on a case-by-case basis.

As another WOE factor, for areas within the NOx SIP call domain, results from the EPA regional modeling for NOx controls as well as the Tier2/Low Sulfur program were considered. Also, for all of the areas, EPA considered recent changes in air quality and emissions. For some areas, this was helpful because there were emission reductions in the most recent years that could be related to observed changes in air quality, while for other areas there appeared to be little change in either air quality or emissions. For areas in which air quality trends, associated with changes in emissions levels, could be discerned, these observed changes were used to help decide whether or not the emission controls in the plan would provide progress towards attainment.

The commenter also complained that EPA has applied the WOE determinations to adjust modeling results only when those results indicate nonattainment, and not when they indicate attainment. First, we disagree with the premise of this comment: EPA does not apply the WOE factors to adjust model results. EPA applies the WOE factors as additional analysis to compensate for uncertainty in the air quality modeling. Second, EPA has applied WOE

determinations to all of the attainment demonstrations proposed for approval in December 1999.

Although for most of them, the air quality modeling results by themselves indicated nonattainment, for two metropolitan areas – Chicago and Milwaukee, including parts of the States of Illinois, Indiana, and Wisconsin, the air quality modeling did indicate attainment on the basis of the statistical test.

The commenter further criticized EPA's application of the WOE determination on grounds that EPA ignores evidence indicating that continued nonattainment is likely, such as, according to the commenter, monitoring data indicating that ozone levels in many cities during 1999 continue to exceed the NAAQS by margins as wide or wider than those predicted by the UAM. EPA has reviewed the evidence provided by the commenter. The 1999 monitor values do not constitute substantial evidence indicating that the SIPs will not provide for attainment. These values do not reflect either the local or regional control programs which are scheduled for implementation in the next several years. Once implemented, these controls are expected to lower emissions and thereby lower ozone values. Moreover, there is little evidence to support the statement that ozone levels in many cities during 1999 continue to exceed the NAAQS by margins as wide or wider than those predicted by the UAM. Since areas did not model 1999 ozone levels using 1999 meteorology and 1999 emissions which reflect reductions anticipated by control measures, that are or will be approved into the SIP, there is no way to determine how the UAM predictions for 1999 compare to the 1999 air quality. Therefore, we can not determine whether or not the monitor values exceed the NAAQS by a wider margin than the UAM predictions for 1999. In summary, there is little evidence to support the conclusion that high exceedances in 1999 will continue to occur after adopted control measures are implemented.

In addition, the commenter argued that in applying the WOE determinations, EPA ignored factors showing that the SIPs under-predict future emissions, and the commenter included as examples certain mobile source emissions sub-inventories. EPA did not ignore possible under-prediction in mobile emissions. EPA is presently evaluating mobile source emissions data as part of an effort to update the computer model for estimating mobile source emissions. EPA is considering various changes to the model, and is not prepared to conclude at this time that the net effect of all these various changes would be to increase or decrease emissions estimates. For attainment demonstration SIPs that rely on the Tier 2/Sulfur program for attainment or otherwise (i.e., reflect these programs in their motor vehicle emissions budgets), States have committed to revise their motor vehicle emissions budgets after the MOBILE6 model is released. EPA will work with States on a case-by-case basis if the new emission estimates raise issues about the sufficiency of the attainment demonstration. If analysis indicates additional measures are needed, EPA will take the appropriate action.

Comment 2: We received comments asserting that the attainment demonstration for the Philadelphia area did not model the requisite number of episodes. The comments state that only two episodes were modeled.

Response 2: EPA did note that only two episodes were modeled in our December 16, 1999 proposed rule and in the TSD prepared for the proposed rule. EPA did not consider the lack of a third episode to be a deficiency due to the severity of the two episodes modeled. In both the December 16, 1999 proposed rulemaking and the associated TSD, we noted the following:

- (1) Both of the episodes in the local UAM modeling represent very severe ozone events with meteorological ozone forming potential rankings of less than 80 out of all days over the last fifty years (Cox and Chu 1996).
- (2) Given the severity of these episodes, they are likely to be the controlling episodes in the Philadelphia area in the determination of emission reductions needed for attainment.
- (3) These episodes also represent the meteorological regime most frequently responsible for elevated ozone concentrations in the Philadelphia area.

B. Reliance on the NO_x SIP Call and the Tier 2/Sulfur Rule

Comment: Several commenters stated that given the uncertainty surrounding the NO_x SIP Call at the time of EPA's proposals on the attainment demonstrations, there is no basis for the conclusion reached by EPA that states should assume implementation of the NO_x SIP Call, or rely on it as a part of their demonstrations. One commenter claims that there were errors in the emissions inventories used for the NO_x SIP Call Supplemental Notice (SNPR) and that these inaccuracies were carried over to the modeling analyses, estimates of air quality based on that modeling, and estimates of EPA's Tier 2 tailpipe emissions reduction program not modeled in the demonstrations. Thus, because of the inaccuracies in the inventories used for the SIP Call, the attainment demonstration modeling is also flawed. Finally, one commenter suggests that modeling data demonstrates that the benefits of imposing NO_x SIP Call controls are limited to areas near the sources controlled.

Response: These comments were submitted prior to several court decisions largely upholding EPA's NO_x SIP Call, Michigan v. United States Env. Prot. Agency, 213 F.3d 663 (D.C. Cir.

2000), cert. denied, ___ U.S. ___, 121 S.Ct. 1225, 149 L.Ed. 135 (2001); Appalachian Power v. EPA, 251 F.3d 1026 (D.C. Cir. 2001) . In those cases, the court largely upheld the NOx SIP Call. Although a few issues were vacated or remanded to EPA for further consideration, these issues do not concern the accuracy of the emission inventories relied on for purposes of the SIP Call. Moreover, contrary to the commenter's suggestion, the SIP Call modeling data bases were not used to develop estimates of reductions from the Tier 2/Sulfur program for the severe area one-hour attainment demonstrations. Accordingly, the commenter's concerns that inaccurate inventories for the SIP Call modeling lead to inaccurate results for the severe-area one-hour attainment demonstrations are inapposite.

The remanded issues do affect the ability of EPA and the States to achieve the full level of the SIP Call reductions by May 2003. First, the court vacated the rule as it applied to two states – Missouri and Georgia – and also remanded the definition of a co-generator and the assumed emission limit for internal combustion engines. EPA has informed the states that until EPA addresses the remanded issues, EPA will accept SIPs that do not include those small portions of the emission budget. However, EPA is planning to propose a rule shortly to address the remanded issues and ensure that emission reductions from these States and the emission reductions represented by the two source categories are addressed in time to benefit the severe nonattainment areas. Also, although the court in the Michigan case subsequently issued an order delaying the implementation date to no later than May 31, 2004, and the Appalachian Power case remanded an issue concerning computation of the EGU growth factor, it is EPA's view that States should assume that the SIP Call reductions will occur in time to ensure attainment in the

severe nonattainment areas. Both EPA and the States are moving forward to implement the SIP Call.

Finally, contrary to the commenter's conclusions, EPA's modeling to determine the region-wide impacts of the NOx SIP call clearly shows that regional transport of ozone and its precursors is impacting nonattainment areas several states away. This analysis was upheld by the court in Michigan.

C. RACM (Including Transportation Control Measures)

Comment: Several commenters have stated that there is no evidence in several states that they have adopted reasonably available control measures (RACM) or that the SIPs have provided for attainment as expeditiously as practicable. Specifically, the lack of Transportation Control Measures (TCMs) was cited in several comments, but commenters also raised concerns about potential stationary source controls. One commenter stated that mobile source emission budgets in the plans are by definition inadequate because the SIPs do not demonstrate timely attainment or contain the emissions reductions required for all RACM. That commenter claims that EPA may not find adequate a motor vehicle emission budget (MVEB) that is derived from a SIP that is inadequate for the purpose for which it is submitted. The commenter alleges that none of the MVEBs submitted by the states that EPA is considering for adequacy is consistent with the level of emissions achieved by implementation of all RACM; nor are they derived from SIPs that provide for attainment. Some commenters stated that for measures that are not adopted into the SIP, the State must provide a justification for why they were determined to not be RACM.

Response: EPA reviewed the initial SIP submittals for the Philadelphia area and determined that they did not include sufficient documentation concerning available RACM measures. For all of the severe areas for which EPA proposed approval in December 1999, EPA consequently issued policy guidance memorandum to have these States address the RACM requirement through an additional SIP submittal. (Memorandum of December 14, 2000, from John S. Seitz, Director, Office of Air Quality Planning and Standards, re: "Additional Submission on RACM from States with Severe 1-hour Ozone Nonattainment Area SIPs").

On July 19, 2001 the Commonwealth of Pennsylvania formally submitted a supplement to its 2005 attainment demonstration SIP consisting of an analysis and determination of RACM. On August 30, 2001 (66 FR 45797), EPA proposed to approve this supplement to the attainment demonstration SIP as meeting the RACM requirements. EPA did not receive any comments on its August 30, 2001 proposal. Please see the discussion in I.E. of this document.

Section 172(c)(1) of the Act requires SIPs to contain RACM and provides for areas to attain as expeditiously as practicable. EPA has previously provided guidance interpreting the requirements of 172(c)(1). See 57 FR 13498, 13560. In that guidance, EPA indicated its interpretation that potentially available measures that would not advance the attainment date for an area would not be considered RACM. EPA also indicated in that guidance that states should consider all potentially available measures to determine whether they were reasonably available for implementation in the area, and whether they would advance the attainment date. Further, states should indicate in their SIP submittals whether measures considered were reasonably available or not, and if measures are reasonably available they must be adopted as RACM.

Finally, EPA indicated that states could reject measures as not being RACM because they would not advance the attainment date, would cause substantial widespread and long-term adverse impacts, would be economically or technologically infeasible, or would be unavailable based on local considerations, including costs. The EPA also issued a recent memorandum re-confirming the principles in the earlier guidance, entitled, "Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas." John S. Seitz, Director, Office of Air Quality Planning and Standards. November 30, 1999. Web site: <http://www.epa.gov/ttn/oarpg/t1pgm.html>.

The analysis submitted by Pennsylvania on July 19, 2001, as a supplement to its attainment demonstration SIP for the Philadelphia area, addresses the RACM requirement. Pennsylvania convened a stakeholders group (the Southeastern Pennsylvania Ozone Stakeholders Group) to examine a wide variety of potential stationary and mobile source controls. The stationary/area source controls that were considered included the adoption of South Coast Air Quality Management District/California Air Resources Board's (SCAQMD/CARB) limits for certain VOC source categories that are more stringent than the already adopted control technique guideline (CTG) limits, e.g., fabric/paper, magnet wire, vinyl, miscellaneous metal parts, coil and metal furniture coating; limits on area source categories not covered by a CTG, e.g., adhesives, motor vehicle refinishing, surface/cleaning degreasing, underground storage tank vents; rule effectiveness improvements; wood furniture coating (Pennsylvania has a SIP-approved rule consistent with RACT limits recommended under the CTG; under consideration for the RACM analysis was expanding the applicability of those limits to sources smaller than

those covered by the CTG); “beyond RACT” controls on major stationary sources of NO_x; and other potential measures.

The mobile source control measures considered included the national low emission vehicle program, accelerated replacement of older buses with cleaner buses, compressed natural gas (CNG) fueled buses, and emissions-based vehicle registration fees. Mobile source controls also included control measures aimed at reducing vehicle trips, travel or congestion via land use planning, traffic flow improvements (signalization, ramp metering, speed limit restriction enforcement), improved mass transit, expanded parking at rail stations, telecommuting, bicycle lanes or access improvements at rail stations, parking taxes/surcharge, and increased gasoline taxes or miles travel based fees.

Pennsylvania considered an extensive list of potential control measures and chose measures for implementation which went beyond the Federally mandated controls, which were found to be cost effective and technologically feasible. From the list of measures considered, the rules and measures adopted and submitted by Pennsylvania, as analyzed and examined by the stakeholders group, are as follows:

(1) Pennsylvania has adopted, and EPA has SIP-approved, the Commonwealth’s rule for vehicle refinishing. The rule includes VOC content limits for motor vehicle refinishing coatings, application standards and storage and housekeeping work practices. This rule goes beyond the Federal rule in content limits and application and work practices standards. Compliance with this rule was required in 2000.

(2) Pennsylvania has adopted, and EPA has SIP-approved, the Commonwealth's rule requiring the sale of vehicles under the national low-emission vehicle program.

(3) Pennsylvania has adopted, and EPA has SIP-approved, the Commonwealth's rule to implement Phase II NOx controls under the Ozone Transport Commission's (OTC) Memorandum of Understanding (MOU). This rule established a fixed cap on ozone-season NOx emissions from major point sources of NOx. The rule grants each source a fixed number of NOx allowances, applies state-wide, and requires compliance during the ozone season. The implementation of this rule commenced May 1, 1999 and reduces NOx emissions both inside and outside the Philadelphia area.

(4) Pennsylvania has adopted, and EPA has SIP-approved, the Commonwealth's rule to implement the NOx SIP call. The Pennsylvania rule requires compliance commencing with the start of the 2003 ozone season. (This measure was identified as Phase III control under the OTC MOU on NOx control in the RACM submittal because the evaluation occurred in 1996, well before the SIP call proposal.)

(5) Pennsylvania has also adopted rule effectiveness improvements for the implementation of regulations through the attainment year of 2005 for its portion of the Philadelphia area as part of its post 1996 Rate of Progress Plans which EPA is approving in this final rulemaking.

Pennsylvania considered a number of measures that have the potential to achieve benefits but concluded that some were not cost effective, that others have the potential for substantial widespread and long-term adverse impacts and that one measure, a mandatory ban on residential lawn care activities on high ozone days, was infeasible due to the impracticability of effective enforcement. These are explained in further detail in the docket for this rulemaking. For the

reasons explained in our August 30, 2001 SNPR, EPA concluded that no additional measures could advance the attainment date for the Philadelphia area prior to full implementation of all controls scheduled for implementation by 2005.

Although EPA does not believe that section 172(c)(1) requires implementation of additional measures for the Philadelphia area, this conclusion is not necessarily valid for other areas. Thus, a determination of RACM is necessary on a case-by-case basis and will depend on the circumstances for the individual area. In addition, if in the future EPA moves forward to implement another ozone standard, this RACM analysis would not control what is RACM for these or any other areas for that other ozone standard.

Also, EPA has long advocated that States consider the kinds of control measures that the commenters have suggested, and EPA has indeed provided guidance on those measures. See, e.g., <http://www.epa.gov/otaq/transp.htm> . In order to demonstrate that they will attain the 1-hour ozone NAAQS as expeditiously as practicable, some areas may need to consider and adopt a number of measures—including the kind that Pennsylvania itself evaluated in its RACM analysis --that even collectively do not result in many emission reductions. Furthermore, EPA encourages areas to implement technically available and economically feasible measures to achieve emissions reductions in the short term—even if such measures do not advance the attainment date—since such measures will likely improve air quality. Also, over time, emission control measures that may not be RACM now for an area may ultimately become feasible for the same area due to advances in control technology or more cost-effective implementation techniques. Thus, areas should continue to assess the state of control technology as they make

progress toward attainment and consider new control technologies that may in fact result in more expeditious improvement in air quality.

Because EPA is finding that the SIP meets the CAA's requirement for RACM and that there are no additional reasonably available control measures that can advance the attainment date, EPA concludes that the attainment date being approved is expeditiously as practicable.

The motor vehicle emissions budgets are adequate. The SIP includes all necessary RACM and provides for expeditious attainment as explained herein.

D. Approval of Attainment Demonstrations That Rely on State Commitments or State Rules For Emission Limitations to Lower Emissions in the Future not yet Adopted by a State and/or Approved by EPA

Comment: Several commenters disagreed with EPA's proposal to approve states' attainment and rate of progress demonstrations because (a) not all of the emissions reductions assumed in the demonstrations have actually taken place, (b) are reflected in rules yet to be adopted and approved by a state and approved by EPA as part of the SIP, (c) are credited illegally as part of a demonstration because they are not approved by EPA as part of the SIP, or (d) the commenter maintains that EPA does not have authority to accept enforceable state commitments to adopt measures in the future in lieu of current adopted measures to fill a near-term shortfall of reductions.

Response: EPA disagrees with the comments, and believes – consistent with past practice – that the CAA allows approval of enforceable commitments that are limited in scope where

circumstances exist that warrant the use of such commitments in place of adopted measures.⁷

Once EPA determines that circumstances warrant consideration of an enforceable commitment, EPA believes that three factors should be considered in determining whether to approve the enforceable commitment: (1) whether the commitment addresses a limited portion of the statutorily- required program; (2) whether the state is capable of fulfilling its commitment; and (3) whether the commitment is for a reasonable and appropriate period of time.

It is also noted that while the Commonwealth does rely on commitments to adopt additional measures for the purpose of demonstrating attainment, it does not rely on commitments to demonstrate ROP. See 66 FR 44568, August 24, 2001. The Commonwealth's Post 1996 plans demonstrate ROP with VOC and NOx emission reductions achieved within the nonattainment area by the implementation of fully promulgated Federal and fully adopted, SIP-approved state measures.

As an initial matter, EPA believes that present circumstances for the New York City, Philadelphia, Baltimore and Houston nonattainment areas warrant the consideration of

⁷ These commitments are enforceable by the EPA and citizens under, respectively, sections 113 and 304 of the CAA. In the past, EPA has approved enforceable commitments and courts have enforced these actions against states that failed to comply with those commitments. See, e.g., American Lung Ass'n of N.J. v. Kean, 670 F. Supp.1285 (D.N.J. 1987), aff'd, 871 F.2d 319 (3rd Cir. 1989); NRDC v. N.Y. State Dept. of Envs. Cons., 668 F. Supp. 848 (S.D.N.Y.1987); Citizens for a Better Env't v. Deukmejian, 731 F. Supp. 1448, recon. granted in part, 746 F. Supp. 976 (N.D. Cal. 1990); Coalition for Clean Air v. South Coast Air Quality Mgt. Dist., No. CV 97 - 6916 HLH, (C.D. Cal. Aug. 27, 1999). Further, if a state fails to meet its commitments, EPA could make a finding of failure to implement the SIP under section 179(a) of the Act, which starts an 18-month period for the State to begin implementation before mandatory sanctions are imposed.

enforceable commitments. The Northeast states that make up the New York, Baltimore, and Philadelphia nonattainment areas submitted SIPs that they reasonably believed demonstrated attainment with fully adopted measures. After EPA's initial review of the plans, EPA recommended to these areas that additional controls would be necessary to ensure attainment. Because these areas had already submitted plans with many fully adopted rules and the adoption of additional rules would take some time, EPA believed it was appropriate to allow these areas to supplement their plans with enforceable commitments to adopt and submit control measures to achieve the additional necessary reductions. For Pennsylvania's attainment demonstration for the Philadelphia area, EPA has determined that the submission of enforceable commitments in place of adopted control measures for these limited sets of reductions will not interfere with each area's ability to meet its 2005 attainment obligations.

EPA's approach here of considering enforceable commitments that are limited in scope is not new. EPA has historically recognized that under certain circumstances, issuing full approval may be appropriate for a submission that consists, in part, of an enforceable commitment. See e.g., 62 FR 1150, 1187, Jan. 8, 1997 (ozone attainment demonstration for the South Coast Air Basin; 65 FR 18903, Apr. 10, 2000 (revisions to attainment demonstration for the South Coast Air Basin); 63 FR 41326, Aug. 3, 1998 (federal implementation plan for PM-10 for Phoenix); 48 FR 51472 (state implementation plan for New Jersey). Nothing in the Act speaks directly to the approvability of enforceable commitments.⁸ However, EPA believes that its interpretation is

⁸ Section 110(k)(4) provides for "conditional approval" of commitments that need not be enforceable. Under that section, a State may commit to "adopt specific enforceable measures" within one-year of the conditional approval. Rather than enforcing such commitments against the State, the Act provides that the conditional approval will convert to a disapproval if "the

consistent with provisions of the CAA. For example, section 110(a)(2)(A) provides that each SIP “shall include enforceable emission limitations and other control measures, means or techniques...as well as schedules and timetables for compliance, as may be necessary or appropriate to met the applicable requirement of the Act.” (Emphasis added). Section 172(c)(6) of the Act requires, as a rule generally applicable to nonattainment SIPs, that the SIP “include enforceable emission limitations and such other control measures, means or techniques . . . as may be necessary or appropriate to provide for attainment . . . by the applicable attainment date . . .” (Emphasis added). The emphasized terms mean that enforceable emission limitations and other control measures do not necessarily need to generate reductions in the full amount needed to attain. Rather, the emissions limitations and other control measures may be supplemented with other SIP rules - for example, the enforceable commitments EPA is approving today - as long as the entire package of measures and rules provides for attainment.

As provided, after concluding that the circumstances warrant consideration of an enforceable commitment – as they do for the Philadelphia area – EPA would consider three factors in determining whether to approve the submitted commitments. First, EPA believes that the commitments must be limited in scope. In 1994, in considering EPA’s authority under section 110(k)(4) to conditionally approve unenforceable commitments, the Court of Appeals for the District of Columbia Circuit struck down an EPA policy that would allow States to submit (under limited circumstances) commitments for entire programs. Natural Resources Defense Council v. EPA, 22 F.3d 1125 (D.C. Cir. 1994). While EPA does not believe that case is

State fails to comply with such commitment.”

directly applicable here, EPA agrees with the Court that other provisions in the Act contemplate that a SIP submission will consist of more than a mere commitment. See NRDC, 22 F.3d at 1134.

In the present circumstances, the commitments address only a small portion of the plan. For the Philadelphia area, the commitment addresses only 10.6% of the VOC and 0.7% of the NO_x emissions reductions necessary to attain the standard. A summary of the adopted control measures and other components credited in Pennsylvania's attainment demonstration submission are discussed in Sections G. and H. of this document. These adopted and implemented control measures are the majority of the emissions reductions needed to demonstrate attainment.

As to the second factor, whether the State is capable of fulfilling the commitment, EPA considered the current or potential availability of measures capable of achieving the additional level of reductions represented by the commitment. For the New York, Philadelphia and Baltimore nonattainment areas, EPA believes that there are sufficient untapped sources of emission reductions that could achieve the minimal levels of additional reductions that the areas need. This is supported by the recent recommendation of the Ozone Transport Commission (OTC) regarding specific controls that could be adopted to achieve the level of reductions needed for each of these three nonattainment areas. Thus, EPA believes that the States will be able to find sources of reductions to meet the shortfall. The States that comprise the New York, Philadelphia and Baltimore nonattainment areas are making significant progress toward adopting the measures to fill the shortfall. The OTC has met and on March 29, 2001 recommended a set

of control measures. Currently, the States are working through their adoption processes with respect to those, and in some cases other, control measures.

The Commonwealth is well into the adoption process for these measures. Although EPA has evidence that the Commonwealth may not make the submission on or before the date to which it has committed, EPA believes that it is making sufficient progress to support approval of the commitment because the Commonwealth will adopt and implement the measures within a time period fully consistent with the Philadelphia area attaining the standard by its approved attainment date.

The third factor, EPA has considered in determining to approve limited commitments for the Philadelphia attainment demonstration is whether the commitment is for a reasonable and appropriate period. EPA recognizes that both the Act and EPA have historically emphasized the need for submission of adopted control measures in order to ensure expeditious implementation and achievement of required emissions reductions. Thus, to the extent that other factors – such as the need to consider innovative control strategies – support the consideration of an enforceable commitment in place of adopted control measures, the commitment should provide for the adoption of the necessary control measures on an expeditious, yet practicable, schedule.

As provided above, for New York, Baltimore and Philadelphia, EPA proposed that these areas have time to work within the framework of the OTC to develop, if appropriate, a regional control strategy to achieve the necessary reductions and then to adopt the controls on a state-by-state basis. In the proposed approval of the attainment demonstrations, EPA proposed that these areas

would have approximately 22 months to complete the OTC and state-adoption processes – a fairly ambitious schedule – i.e., until October 31, 2001. As a starting point in suggesting this time frame for submission of the adopted controls, EPA first considered the CAA “SIP Call” provision of the CAA – section 110(k)(5) – which provides States with up to 18 months to submit a SIP after EPA requests a SIP revision. While EPA may have ended its inquiry there, and provided for the States to submit the measures within 18 months of its proposed approval of the attainment demonstrations, EPA further considered that these areas were all located within the Northeast Ozone Transport Region (OTR) and determined that it was appropriate to provide these areas with additional time to work through the OTR process to determine if regional controls would be appropriate for addressing the shortfall. See e.g., 64 FR 70428. EPA believed that allowing these States until 2001 to adopt these additional measures would not undercut their attainment dates of November 2005 or 2007. EPA still believes that this a reasonable schedule for the states to submit adopted control measures that will achieve the additional necessary reductions.

The enforceable commitments submitted by Pennsylvania for the Philadelphia nonattainment area, in conjunction with the other SIP measures and other sources of emissions reductions, constitute the required demonstration of attainment and the commitments will not interfere with the area’s ability to make reasonable progress under section 182(c)(2)(B) and (d). EPA believes that the delay in submittal of the final rules is permissible under section 110(k)(3) because the Commonwealth has obligated itself to submit the rules by specified short-term dates, and that obligation is enforceable by EPA and the public. Moreover, as discussed in the December 16, 1999 proposal, its Technical Support Document (TSD), and Sections G. and H. of this document,

the SIP submittal approved today contains major substantive components submitted as adopted regulations and enforceable orders.

EPA believes that the Pennsylvania SIP meets the NRDC consent decree definition of a “full attainment demonstration.” The consent decree defines a “full attainment demonstration” as a demonstration according to CAA section 182(c)(2). As a whole, the attainment demonstration – consisting of photochemical grid modeling, adopted control measures, an enforceable commitment with respect to a limited portion of the reductions necessary to attain, and other analyses and documentation – is approvable since it “provides for attainment of the ozone [NAAQS] by the applicable attainment date.” See section 182(c)(2)(A).

E. Adequacy of Motor Vehicle Emissions Budgets

Comment: We received a number of comments about the process and substance of EPA’s review of the adequacy of motor vehicle emissions budgets for transportation conformity purposes.

Response: EPA’s adequacy process for most of these SIPs has been completed, and we have found the motor vehicle emissions budgets in all of these SIPs to be adequate. We have already responded to any comments related to adequacy of the ROP budgets that we are approving in this action, when we issued our adequacy findings, and therefore we are not listing the individual comments or responding to them here.

On August 24, 2001 (66FR 44571), we proposed to approve and to determine adequate the revised 2005 attainment budgets, shown in Table 4, which were submitted by the

Commonwealth on July 19, 2001. We received no comments on the August 24, 2001 proposal. In this final rule we are finding the revised budgets of the 2005 attainment demonstration SIP submitted by the Commonwealth adequate, and are approving them.

All of our findings of adequacy and responses to comments can be accessed at www.epa.gov/otaq/traq (once there, click on the “conformity” button). At the web site, EPA regional contacts are identified.

Comment 2: We received comments asserting that Pennsylvania has not provided a clear indication of how the conformity requirements of the Clean Air Act are being met. Conformity is an important tool to ensure that transportation programs or policies are fully developed with Clean Air Act obligations in mind.

Response 2: The attainment demonstration SIP is not required to describe how conformity requirements are being met. Demonstrations of conformity are a separate process and mandate upon certain recipients of Federal funds that are independently enforceable under the CAA and EPA regulations. See 42 U.S.C. 7506. The SIP does identify motor vehicle emissions budgets that will be used for the purposes of determining conformity in the future. EPA has found all the budgets adequate for conformity purposes as discussed in Sections I.F. and I.I. and in this action is approving the attainment demonstration and ROP plans each of which contain motor vehicle emissions budgets.

Comment 3: We received comments asserting that Pennsylvania’s motor vehicle emissions budgets do not provide sufficient emission reductions to demonstrate attainment.

Response 3: In our December 16, 1999 NPR, we proposed to approve Pennsylvania's attainment demonstration for the Philadelphia area. For the reasons outlined in our December 16, 1999 NPR and in responses to comments regarding the weight of evidence, EPA concluded that Pennsylvania had adequate modeling demonstrating attainment for the Philadelphia area provided that Pennsylvania commit to adopting additional measures to strengthen the weight of evidence. Pennsylvania has adopted such an enforceable commitment and EPA is approving this commitment. In addition, approval under the December 16, 1999 NPR was contingent upon approval into the SIP of rules upon which the modeling demonstration and upon adoption of adequate motor vehicle emissions budgets that reflected the benefits from the Federal Tier 2/Sulfur rule. EPA has approved into the SIP the needed rules and is determining in this action that Pennsylvania has adopted and submitted adequate budgets incorporating the benefits from the Federal Tier 2/Sulfur rule. The adequacy criteria include a determination that the motor vehicle emissions budgets, when considered together with all other emissions sources, is consistent with applicable requirements for attainment. See 40 CFR 93.118(e)(4)(iv). EPA is approving Pennsylvania's attainment demonstration because it is supported by an adequate modeling demonstration and because the measures upon which the modeling demonstration is based are creditable and because the motor vehicle emissions budgets are consistent with the measures in the SIP and the attainment demonstration.

F. Attainment Demonstration and Rate of Progress Motor Vehicle Emissions Inventories

Comment: Several commenters stated that the motor vehicle emissions inventory is not current, particularly with respect to the fleet mix. Commenters stated that the fleet mix does not accurately reflect the growing proportion of sport utility vehicles and gasoline trucks, which

pollute more than conventional cars. Also, a commenter stated that EPA and states have not followed a consistent practice in updating SIP modeling to account for changes in vehicle fleets. For these reasons, commenters recommend disapproving the SIPs.

Response: All of the SIPs on which we are taking final action are based on the most recent vehicle registration data available at the time the SIP was submitted. The SIPs use the same vehicle fleet characteristics that were used in the most recent periodic inventory update. The Commonwealth modeled vehicle age distributions from 1993. EPA requires the most recent available data to be used, but we do not require it to be updated on a specific schedule.

Therefore, different SIPs base their fleet mix on different years of data. Our guidance does not suggest that SIPs should be disapproved on this basis. Nevertheless, we do expect that revisions to these SIPs that are submitted using MOBILE6 (as required in those cases where the SIP is relying on emissions reductions from the Tier 2 standards) will use updated vehicle registration data appropriate for use with MOBILE6, whether it is updated local data or the updated national default data that will be part of MOBILE6.

G. VOC Emission Reductions

Comment: For States that need additional VOC reductions, one commenter recommends a process to achieve these VOC emission reductions, which involves the use of HFC-152a (1,1 difluoroethane) as the blowing agent in manufacturing of polystyrene foam products such as food trays and egg cartons. The commenter states that HFC-152a could be used instead of hydrocarbons, a known pollutant, as a blowing agent. Use of HFC-152a, which is classified as VOC exempt, would eliminate nationwide the entire 25,000 tons/year of VOC emissions from this industry.

Response: EPA has met with the commenter and has discussed the technology described by the company to reduce VOC emissions from polystyrene foam blowing through the use of HFC-152a (1,1 difluoroethane), which is a VOC exempt compound, as a blowing agent. Since the HFC-152a is VOC exempt, its use would give a VOC reduction compared to the use of VOCs such as pentane or butane as a blowing agent. However, EPA has not studied this technology exhaustively. It is each State's prerogative to specify which measures it will adopt in order to achieve the additional VOC reductions it needs. In evaluating the use of HFC-152a, States may want to consider claims that products made with this blowing agent are comparable in quality to products made with other blowing agents. Also the question of the over-all long term environmental effect of encouraging emissions of fluorine compounds would be relevant to consider. This is a technology which States may want to consider, but ultimately, the decision of whether to require this particular technology to achieve the necessary VOC emissions reductions must be made by each affected State. Finally, EPA notes that under the significant new alternatives policy (SNAP) program, created under CAA § 612, EPA has identified acceptable foam blowing agents many of which are not VOCs (<http://www.epa.gov/ozone/title6/snap/>).

H. Credit for Measures not Fully Implemented

Comment: States should not be given credit for measures that are not fully implemented. For example, the States are being given full credit for Federal coating, refinishing and consumer product rules that have been delayed or weakened.

Response: Architectural and Industrial Maintenance (AIM) Coatings: On March 22, 1995 EPA issued a memorandum⁹ that provided that States could claim a 20% reduction in VOC emissions from the AIM coatings category in ROP and attainment plans based on the anticipated promulgation of a national AIM coatings rule. In developing the attainment and ROP SIPs for their nonattainment areas, States relied on this memorandum to estimate emission reductions from the anticipated national AIM rule. EPA promulgated the final AIM rule in September 1998, codified at 40 CFR Part 59 Subpart D. In the preamble to EPA's final AIM coatings regulation, EPA estimated that the regulation will result in 20% reduction of nationwide VOC emissions from AIM coatings categories (63 FR 48855). The estimated VOC reductions from the final AIM rule resulted in the same level as those estimated in the March 1995 EPA policy memorandum. In accordance with EPA's final regulation, States have assumed a 20% reduction from AIM coatings source categories in their attainment and ROP plans. AIM coatings manufacturers were required to be in compliance with the final regulation within one year of promulgation, except for certain pesticide formulations which were given an additional year to comply. Thus all manufacturers were required to comply, at the latest, by September 2000. Industry confirmed in comments on the proposed AIM rule that 12 months between the issuance of the final rule and the compliance deadline would be sufficient to "use up existing label stock" and "adjust inventories" to conform to the rule. 63 FR 48848 (September 11, 1998). In addition, EPA determined that, after the compliance date, the volume of nonconforming products would be very low (less than one percent) and would be withdrawn from retail shelves anyway.

⁹"Credit for the 15 Percent Rate-of-Progress Plans for Reductions from the Architectural and Industrial Maintenance (AIM) Coating Rules," March 22, 1995, from John S. Seitz, Director, Office of air Quality Planning and Standards to Air Division Directors, Regions I-X.

Therefore, EPA believes that compliant coatings were in use by the Fall of 1999 with full reductions to be achieved by September 2000 and that it was appropriate for the States to take credit for a 20% emission reduction in their SIPs.

Autobody Refinish Coatings Rule: Consistent with a November 27, 1994 EPA policy¹⁰, many States claimed a 37% reduction from this source category based on a proposed rule. However, EPA's final rule, "National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings," published on September 11, 1998 (63 FR 48806), did not regulate lacquer topcoats and will result in a smaller emission reduction of around 33% overall nationwide. The 37% emission reduction from EPA's proposed rule was an estimate of the total nationwide emission reduction. Since this number is an overall national average, the actual reduction achieved in any particular area could vary depending on the level of control which already existed in the area. For example, in California the reduction from the national rule is zero because California's rules are more stringent than the national rule. In the proposed rule, the estimated percentage reduction for areas that were unregulated before the national rule was about 40%. However as a result of the lacquer topcoat exemption added between proposal and final rule, the reduction is now estimated to be 36% for previously unregulated areas. Thus, most previously unregulated areas will need to make up the approximately 1% difference between the 37% estimate of reductions assumed by States, following EPA guidance based on the proposal, and the 36% reduction actually achieved by the final rule for previously unregulated areas.

EPA's best estimate of the reduction potential of the final rule was spelled out in a September

¹⁰"Credit for the 15 Percent Rate-of-Progress Plans for Reductions from the Architectural and Industrial Maintenance (AIM) Coating Rule and the Autobody Refinishing Rule," November 29, 1994, John S. Seitz, Director OAQPS, to Air Division Directors, Regions I - X.

19, 1996 memorandum entitled "Emissions Calculations for the Automobile Refinish Coatings Final Rule" from Mark Morris to Docket No. A-95-18. The Commonwealth revised the autobody rule in 1999, and EPA approved the revisions on August 14, 2000 [65 FR 49501]. The revised rule will achieve the 37% assumed reduction from the measure. EPA found the PADEP achieves a 36% reduction for milestone 1999 and 37% for years 2002 and 2005.

Consumer Products Rule: Consistent with a June 22, 1995 EPA guidance¹¹, States claimed a 20% reduction from this source category based on EPA's proposed rule. The final rule, "National Volatile Organic Compound Emission Standards for Consumer Products," (63 FR 48819), published on September 11, 1998, has resulted in a 20% reduction after the December 10, 1998 compliance date. Moreover, these reductions largely occurred by the Fall of 1999. In the consumer products rule, EPA determined and the consumer products industry concurred, that a significant proportion of subject products have been reformulated in response to State regulations and in anticipation of the final rule (63 FR 48819). That is, industry reformulated the products covered by the consumer products rule in advance of the final rule. Therefore, EPA believes that complying products in accordance with the rule were in use by the Fall of 1999. It was appropriate for the States to take credit for a 20% emission reduction for the consumer products rule in their SIPs.

I. Enforcement of Control Programs

¹¹"Regulatory Schedule for Consumer and Commercial Products under section 183(e) of the Clean Air Act," June 22, 1995, John S. Seitz, Director OAQPS, to Air Division Directors, Regions I - X.

Comment: The attainment demonstrations do not clearly set out programs for enforcement of the various control strategies relied on for emission reduction credit.

Response: In general, state enforcement, personnel and funding program elements are contained in SIP revisions previously approved by EPA under obligations set forth in section 110(a)(2)(c) of the Clean Air Act. Once approved by the EPA, there is no need for states to re-adopt and resubmit these programs with each and every SIP revision generally required by other sections of the Act. Pennsylvania has previously received approval of its section 110(a)(2) SIPs. In a final rulemaking action published on February 26, 1985, EPA approved Pennsylvania's financial and manpower resource commitments for Southeast Pennsylvania (50 FR 7772, 7775), after having proposed approval of these commitments on February 3, 1983 (48 FR 5096, 5099). In addition, emission control regulations will also contain specific enforcement mechanisms, such as record keeping and reporting requirements, and may also provide for periodic state inspections and reviews of the affected sources. EPA's review of these regulations includes review of the enforceability of the regulations. Rules that are not enforceable are generally not approved by the EPA. To the extent that the ozone attainment demonstration depends on specific state emission control regulations, these individual regulations have undergone review by the EPA in past approval actions.

J. MOBILE6 and Motor Vehicle Emissions Budgets (MVEBS)

Comment 1: One commenter generally supports a policy of requiring motor vehicle emissions budgets to be recalculated when revised MOBILE models are released.

Response 1: The attainment demonstrations that rely on Tier 2 emission reduction credit contain commitments to revise the motor vehicle emissions budgets after MOBILE6 is released.

Comment 2: The revised budgets calculated using MOBILE6 will likely be submitted after the MOBILE5 budgets have already been approved. EPA's policy is that submitted SIPs may not replace approved SIPs.

Response 2: This is the reason that EPA proposed in the July 28, 2000, SNPR (65 FR 46383) that the approval of the MOBILE5 budgets for conformity purposes would last only until MOBILE6 budgets had been submitted and found adequate. In this way, the MOBILE6 budgets can apply for conformity purposes as soon as they are found adequate.

Comment 3: If a State submits additional control measures that affect the motor vehicle emissions budget, but does not submit a revised motor vehicle emissions budget, EPA should not approve the attainment demonstration.

Response 3: EPA agrees. The motor vehicle emissions budgets in the Philadelphia attainment demonstration reflect the motor vehicle control measures in the attainment demonstration. In addition, Pennsylvania has committed to submit new budgets as a revision to the attainment SIP consistent with any new measures submitted to fill any shortfall, if the additional control measures affect on-road motor vehicle emissions.

Comment 4: EPA should make it clear that the motor vehicle emissions budgets to be used for conformity purposes will be determined from the total motor vehicle emissions reductions required in the SIP, even if the SIP does not explicitly quantify a revised motor vehicle emissions budget.

Response 4: EPA will not approve SIPs without motor vehicle emissions budgets that are explicitly quantified for conformity purposes. The Philadelphia attainment demonstration contains explicitly quantified motor vehicle emissions budgets.

Comment 5: If a state fails to follow through on its commitment to submit the revised motor vehicle emissions budgets using MOBILE6, EPA could make a finding of failure to submit a portion of a SIP, which would trigger a sanctions clock under section 179.

Response 5: If a state fails to meet its commitment, EPA could make a finding of failure to implement the SIP, which would start a sanctions clock under section 179 of the Clean Air Act.

Comment 6: If the budgets recalculated using MOBILE6 are larger than the MOBILE5 budgets, then attainment should be demonstrated again.

Response 6: As EPA proposed in its December 16, 1999 notices, we will work with States on a case-by-case basis if the new emissions estimates raise issues about the sufficiency of the attainment demonstration.

Comment 7: If the MOBILE6 budgets are smaller than the MOBILE5 budgets, the difference between the budgets should not be available for reallocation to other sources unless air quality data show that the area is attaining, and a revised attainment demonstration is submitted that demonstrates that the increased emissions are consistent with attainment and maintenance. Similarly, the MOBILE5 budgets should not be retained (while MOBILE6 is being used for conformity demonstrations) unless the above conditions are met.

Response 7: EPA agrees that if recalculation using MOBILE6 shows lower motor vehicle emissions than MOBILE5, then these motor vehicle emission reductions cannot be reallocated to other sources or assigned to the motor vehicle emissions budget as a safety margin unless the area reassesses the analysis in its attainment demonstration and shows that it will still attain. In other words, the area must assess how its original attainment demonstration is impacted by using MOBILE6 versus MOBILE5 before it reallocates any apparent motor vehicle emission reductions resulting from the use of MOBILE6. In addition, Pennsylvania will be submitting new budgets based on MOBILE 6, so the MOBILE 5 budgets will not be retained in the SIP indefinitely.

K. MOBILE 6 Grace Period

Comment 1: We received a comment on whether the grace period before MOBILE6 is required in conformity determinations will be consistent with the schedules for revising SIP motor vehicle emissions budgets within 1 or 2 years of MOBILE6's release.

Response 1: This comment is not germane to this rulemaking, since the MOBILE 6 grace period for conformity determinations is not explicitly tied to EPA's SIP policy and approvals. However, EPA understands that a longer grace period would allow some areas to better transition to new MOBILE 6 budgets. EPA is considering the maximum 2-year grace period allowed by the conformity rule, and EPA will address this in the future when the final MOBILE6 emissions model and policy guidance is released.

Comment 2: One commenter asked EPA to clarify in the final rule whether MOBILE6 will be required for conformity determinations once new MOBILE6 budgets are submitted and found adequate.

Response 2: This comment is not germane to this rulemaking. However, it is important to note that EPA intends to clarify its policy for implementing MOBILE6 in conformity determinations when the final MOBILE6 model is released. EPA believes that MOBILE6 should be used in conformity determinations once new MOBILE6 budgets are found adequate.

L. Two-Year Option to Revise the MVEBs

Comment: One commenter did not prefer the additional option for a second year before the state has to revise the conformity budgets with MOBILE6, since new conformity determinations and new transportation projects could be delayed in the second year.

Response: EPA proposed the additional option to provide further flexibility in managing MOBILE6 budget revisions. The supplemental proposal did not change the original option to revise budgets within one year of MOBILE6's release. State and local governments can continue to use the 1-year option, if desired, or submit a new commitment consistent with the alternative 2-year option. EPA expects that state and local agencies have consulted on which option is appropriate and have considered the impact on future conformity determinations. Pennsylvania has committed to revise its budgets within one-year of MOBILE6's release.

M. Unapproved Measures

Comment 1: We received comments that objected to crediting the SIP with reductions from measures not approved into the SIP. The comments specifically mentioned conditionally

approved RACT rules and asserted that credit should not be given for this program until EPA completes review and approval of all case-by-case RACT. The comments also specifically mentioned Phase II NO_x controls under the OTC MOU. We also received comments, which stated that NO_x RACT should be extended to 25 ton-per-years sources.

Response 1: On May 3, 2001 (66 FR 22123), EPA published a rulemaking determining that Pennsylvania had satisfied the conditions imposed in the conditional limited approval of its generic NO_x and VOC RACT regulations. In that rulemaking, EPA removed the conditional status of its approval of the Commonwealth's generic VOC and NO_x RACT regulations on a statewide basis. On October 15, 2001, the Regional Administrator of Region III signed a final rule converting our limited approval of the Pennsylvania generic VOC and NO_x RACT regulation to a full approval as it applies in the Philadelphia area. This final rule has been recently or will be shortly published in the Federal Register. On June 6, 2000, EPA approved Pennsylvania's rule that implements the Phase II controls under the OTC MOU (65 FR 35840). Finally, the applicability threshold for RACT in Pennsylvania's SIP-approved generic NO_x and VOC RACT regulations for the Philadelphia area is 25 ton per year as required in a severe nonattainment area thus NO_x RACT extends to sources that emit 25 tons-per-year.

Comment 2: We received comments asserting that because Pennsylvania had not adopted Phase II NO_x reductions as agreed to in the OTC MOU, has abandoned the NO_x SIP call strategy, and was behind in submitting its RACT submittals the SIP should not be credited with these measures.

Response 2: As discussed in the response to the previous comment, EPA has approved Pennsylvania's NO_x RACT and OTC MOU rules. As discussed in Section I.I. of this document,

Pennsylvania submitted a revision to its SIP to address the requirements of the NO_x SIP Call. EPA fully approved this SIP (66 FR 43795, August 21, 2001).

N. Attainment and Post-1999 Rate of Progress Demonstrations

Comment 1: One commenter claims that the plans fail to demonstrate emission reductions of 3 percent per year over each 3-year period between November 1999 and November 2002; and November 2002 and November 2005; and the 2-year period between November 2005 and November 2007, as required by 42 U.S.C. section 7511a(c)(2)(B). The states have not even attempted to demonstrate compliance with these requirements, and EPA has not proposed to find that they have been met. The commenter states that EPA has absolutely no authority to waive the statutory mandate for 3 percent annual reductions and that the statute does not allow EPA to use the NO_x SIP call or 126 orders as an excuse for waiving ROP deadlines. The commenter asserts that the statutory ROP requirement is for emission reductions – not ambient reductions. The commenter asserts that emission reductions in upwind states do not waive the statutory requirement for 3 percent annual emission reductions within the downwind nonattainment area.

Response 1: Under no condition is EPA waiving the statutory requirement for 3 percent annual emission reductions. For many areas, EPA did not propose approval of the post-99 ROP demonstrations at the same time as EPA proposed action on the area's attainment demonstration. EPA proposed to approve the Commonwealth Post 1996 ROP plans, which include ROP demonstrations for milestone years 1999, 2002, and 2005, on August 24, 2001 (66 FR 44568). We received no comments on that proposal. In this final rulemaking, EPA is approving the Commonwealth's Post 1996 ROP plans. Pennsylvania's Post 1996 plans demonstrate ROP by

relying upon VOC and NOx emissions reductions achieved within the nonattainment area from fully promulgated Federal and fully adopted SIP-approved state measures.

Comment 2: We received comment that the “limited approval” status of the Commonwealth’s Post 1996 ROP plan is not authorized under the CAA.

Response 2: The comment is now moot, because EPA withdrew its previous action proposing “limited approval” of the Commonwealth’s Post1996 plan in the NPR it published on August 24, 2001 (66 FR 44568). EPA re-proposed full approval of the Post-1996 plan on August 24, 2001, and did not receive any comments on this proposal. In this final rulemaking, EPA is fully approving Pennsylvania’s Post1996 plan which relies only upon VOC and NOx emissions reductions achieved within the nonattainment area from fully promulgated Federal and fully adopted SIP-approved state measures.

O. Comments on Specific Area and Point Source Measures

Comment 1: We received comments asserting that Pennsylvania has not adopted the OTC NOx MOU’s Phase II/III reductions and the NOx SIP Call requirements.

Response 1: EPA has fully approved the Pennsylvania’s NOx Allowance Requirements as a SIP revision (65 FR 35840, June 6, 2000). These requirements implement Phase II of the OTC’s MOU to control NOx for the years 1999 - 2002. The Phase III reductions under the OTC MOU have been superseded by Pennsylvania’s SIP-approved NOx SIP Call rule. Compliance with that rule is required starting in 2003. EPA has fully approved the Pennsylvania Interstate Ozone Transport Reduction Plan as meeting the non-remanded portions of the NOx SIP Call rule (66 FR 43795, August 21, 2001). Pennsylvania’s Interstate Ozone Transport Reduction Plan establishes a NOx budget trading program for fossil-fired combustion boilers

with a maximum design heat input greater than 250 MMBTU per hour and electric utility generators with a capacity greater than 25 megawatts. Pennsylvania's Phase I NOx SIP Call trading rule is consistent with the reductions modeled in the attainment demonstration and with EPA's requirements to establish an emission rate of 0.15 lb/MMBtu for electric generating units and 0.17 lb/MMBTU for non-electric generating units.

On March 3, 2000, the D.C. Circuit issued its decision on the NOx SIP Call ruling in favor of EPA on all the major issues. See Michigan v. EPA, 213 F.3d 663 (D.C. Cir. 2000). However, the Court remanded certain matters for further rulemaking by EPA. EPA expects to publish a proposal that addresses the remanded portion of the NOx SIP Call Rule. Pennsylvania will adopt and submit controls to meet the portions of the SIP call budget reflected by reduction from both internal combustion engines and cement kilns in the remanded portions of the NOx SIP Call rule consistent with any schedule EPA establishes in response to the remand.

Comment 2: We received comments that express concerns about the accountability of the reductions from the implementation of the 126 petitions as compared to those assumed in the attainment demonstration.

Response 2: As noted in the December 16, 1999 proposal, Pennsylvania's attainment demonstration assumed NOx reductions consistent with those called for by EPA's NOx SIP Call. In consideration of recent court decisions on the NOx SIP Call as previously described and as explained in EPA's response to comments on "Reliance on NOx SIP Call and Tier 2 Modeling", EPA believes it is appropriate to allow states to continue to assume the reductions from the NOx SIP Call. The fact that EPA has granted section 126 petitions does not remove the obligations of

states subject to the NOx SIP Call to reduce NOx emissions as called for in that rule.

Furthermore, implementation of either the section 126 rules (described in later Sections) or the NOx SIP Call achieves emission reductions prior to the applicable attainment deadline, 2005.

Under recent rulings by the U.S. Court of Appeals for the District of Columbia Circuit both the 126 rule and the NOx SIP Call must be implemented early in the ozone season in 2004.

On August 14-15, 1997, we received petitions submitted individually by eight Northeastern States under section 126 of the CAA. Each petition requests us to make a finding that sources in certain categories of stationary sources in upwind States emit or would emit NOx in violation of the prohibition in section 110(a)(2)(D)(i) on emissions that contribute significantly to nonattainment, or interfere with maintenance, in the petitioning State. On May 25, 1999, we promulgated a final rule (May 1999 Rule) determining that portions of the petitions are approvable under the one-hour and/or eight-hour ozone NAAQS based on their technical merit (64 FR 28250). Based on the affirmative technical determinations for the one-hour ozone NAAQS made in the May 1999 Rule, we promulgated a final rule on January 18, 2000 (January 2000 Rule) making section 126 findings that a number of large electric generating units (EGUs) and large industrial boilers and turbines named in the petitions emit in violation of the CAA prohibition against significantly contributing to nonattainment or maintenance problems in the petitioning States (65 FR 2674). In the January 2000 Rule, we also finalized the Federal NOx Budget Trading Program as the control remedy for sources affected by the rule. This requirement replaces the default remedy in the May 1999 Rule. The January 2000 Rule establishes Federal NOx emissions limits that sources must meet through a cap-and-trade program by May 1, 2003. The January 2000 rule affects sources located in the District of

Columbia, Delaware, Maryland, North Carolina, New Jersey, Ohio, Pennsylvania, Virginia, West Virginia, and parts of Indiana, Kentucky, Michigan, and New York. All of the affected sources are located in States that are subject to the NOx SIP Call.

On October 27, 1998 (63 FR 57356), EPA promulgated the “Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone,” commonly referred to as the NOx SIP Call. On March 3, 2000, the D.C. Circuit issued its decision on the NOx SIP Call largely upholding the rule. See Michigan v. EPA, *supra*. On June 22, 2000, the Court ordered that we allow the States and the District of Columbia 128 days from June 22, 2000 to submit their SIPs. Accordingly, 19 States and the District of Columbia were required to submit SIPs in response to the NOx SIP Call by October 30, 2000.¹² On August 30, 2000, the D.C. Circuit ordered that the June 22, 2000 Order be amended to extend the deadline for implementation of the NOx SIP Call from May 1, 2003 to May 31, 2004. In a separate rulemaking, we are addressing the Court’s remand of the definition of electricity generating units, the control level for large stationary internal combustion engines and the SIP submittal and compliance dates for these actions, which affect less than 10 percent of the total emission reductions called for by the NOx SIP Call.

Furthermore, as noted in the response to a previous comment in this document, Pennsylvania has a state regulation in place to implement the SIP Call requirements. This state rule is in the approved Pennsylvania SIP and requires compliance commencing May 1, 2003.

¹²October 30, 2000 is the first business day following the expiration of the 128-day period.

Comment 3: We received comments asserting that Pennsylvania has failed to implement RACT in an expeditious manner.

Response 3: The Pennsylvania SIP has long included approved RACT regulations for sources and source categories of VOCs covered by the CTGs issued prior to 1990, by CAA section 182(b)(2)(A) and by the CTGs issued after 1990 as required by CAA section 182(b)(2)(B). Additional RACT regulations requiring RACT for all major sources of VOC, not covered by a CTG (non-CTG), and of NO_x were to be submitted to EPA as SIP revisions by November 15, 1992 and compliance required by May of 1995. On February 4, 1994, PADEP submitted a revision to its SIP (25 Pa Code Chapters 129.91 through 129.95) requiring major sources of NO_x and non-CTG VOC sources to implement RACT. These regulations require major sources of NO_x and VOC to submit to PADEP, by no later than July 15, 1994, a written RACT proposal.

In the Philadelphia area, Pennsylvania's RACT regulations require non-CTG sources that have the potential to emit 25 tpy or more of VOC and sources which have the potential to emit 25 tpy or more of NO_x comply with RACT. The regulations contain technology-based or operational "presumptive RACT emission limitations" for certain major NO_x sources. For other major NO_x sources, and all major VOC sources (not otherwise already subject to RACT pursuant to a source category regulation under the Pennsylvania SIP), the regulations contain a "generic" RACT provision. A generic RACT regulation is one that does not, itself, specifically define RACT for a source or source categories but instead allows for case-by-case RACT determinations. The generic provisions of Pennsylvania's regulations allow for PADEP to make case-by case RACT determinations that are then to be submitted to EPA as revisions to the Pennsylvania SIP. The Commonwealth's rule requires that the covered sources, upon PADEP's notification of approval

of their RACT proposal, must implement the RACT “as expeditiously as practicable”, but no later than May 31, 1995.

EPA granted conditional limited approval of the Commonwealth’s VOC and NOx RACT regulations on March 23, 1998 (63 FR 13789), and removed the conditional aspect of the approval on May 3, 2001 (66 FR 22123). On September 6, 2001 (66 FR 46571), EPA proposed to remove the limited nature of its approval of Pennsylvania generic VOC and NOx RACT regulations as they apply in the Philadelphia area on the basis that EPA would have approved source-specific or category-specific RACT rules for all sources subject to the CAA RACT requirement. We received no comments on that proposal. On October 15, 2001, the Regional Administrator of Region III signed a final rule converting our limited approval of Pennsylvania’s generic VOC and NOx RACT regulations to a full approval because EPA has SIP-approved all of the case-by-case RACT determinations submitted by PADEP for affected major sources of NOx and/or VOC sources located in Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties, the five counties that comprise the Pennsylvania portion of the Philadelphia area.

Comment 3: We received comments criticizing the use of rule effectiveness as part of the demonstration. The comments assert that EPA should be skeptical of the reductions from this program based on the Commonwealth’s past enforcement history. Other comments claim that with implementation of RACT on a case-by-case basis the change in rule effectiveness from 80 percent to 90 percent is unrealistic. These comments have been submitted in the form of statements with no accompanying analyses to support them.

Response 3: The EPA disagrees that it is inappropriate to allow credit for improved rule effectiveness (RE) in the attainment demonstration. The Commonwealth has supplied to EPA a protocol that has been implemented at the sources for which increased RE credits have been claimed. EPA conducted its evaluation of Pennsylvania's RE credits as part of our proposed approval of the Post-1996 ROP plans. That supporting documentation, namely the TSD for the Post-1996 ROP plan approval, is part of the docket for this final rulemaking. No comments were received on EPA's proposed action to approve the Commonwealth's Post 1996 ROP plans which included our proposed approval of the RE credits claimed by the Commonwealth. No one has brought to EPA's attention credible evidence that Pennsylvania is not implementing RE at the sources for which RE improvement credits are claimed. It would not be appropriate for EPA to discount credit from a state initiatives based upon unsubstantiated speculation that such a state will not enforce its own SIP.

EPA disagrees with the comment asserting that implementation of RACT on case-by-case basis, is reason to assume that 90 percent RE is unrealistic. To the contrary, EPA believes that RACT rules tailored to specific sources are much more likely to be implemented successfully because any factors that could interfere with implementation of RACT would be considered by the Commonwealth under the SIP-approved provisions of 25 Pa Code Chapters 129.91 through 129.95 when imposing the source-specific RACT determinations.

Comment 4: We received comments expressing the opinion that Stage II controls in Pennsylvania are performing far below the stated efficiency. Therefore, EPA is granting too much credit to Pennsylvania for its Stage II controls. EPA should determine the present

efficiency of these controls and use that level in the attainment demonstration. These comments have been submitted in the form of statements with no accompanying analyses to support them.

Response 4: Pennsylvania has adopted the Stage II control program recommended by EPA. No one has brought to EPA's attention any credible evidence that Pennsylvania is implementing their program in a manner inconsistent with EPA guidance, which might lower the expected reductions below levels which are conforming to past EPA estimates of Stage II efficiency.

P. Comments on Specific Mobile Source Measures

Comment: We received comments asserting that Pennsylvania is not fully implementing its SIP approved enhanced vehicle inspection and maintenance program and that EPA should not approve a demonstration that includes benefits from a program that is not fully implemented. The comments claim that Pennsylvania has not implemented all pass-fail standards on schedule in the Philadelphia area.

Response: EPA advised the Commonwealth, in a letter dated April 12, 2001 (Oge to Serian), that it should not implement final acceleration simulation mode (ASM) cutpoints on 1995 and older vehicles. EPA is currently conducting additional research on the effects of implementation of final ASM cutpoints on 1995 and older vehicles and will issue guidance in the near future. The issuance of this guidance will allow the Commonwealth to implement final ASM cutpoints for 1995 and older vehicles at least one year prior to the area's attainment date. This will allow the Commonwealth to complete at least one full cycle of tests at final cutpoints prior to the areas' attainment date. The Commonwealth has already implemented final cutpoints for 1996 and newer vehicles. Since all vehicles subject to the program will receive at least one inspection at final cutpoints prior to the area's attainment date, the Commonwealth will achieve the

emission reductions that it has planned for in its attainment demonstration. At this time, EPA does not believe that it is necessary or justifiable to delay approval of the Commonwealth's attainment demonstration due to the fact that the Commonwealth has not implemented all pass-fail standards on schedule in the Philadelphia area. The Commonwealth has provided EPA assurances that it will implement the final cutpoints upon issuance of the guidance referenced herein. The Commonwealth has implemented a successful enhanced I/M program and continues to work with EPA on technical issues regarding the ASM program. EPA believes that the Commonwealth has achieved and will continue to gain air quality benefits from its enhanced I/M program as necessary for the Philadelphia area to achieve attainment of the ozone NAAQS.

Q. NO_x Substitution

Comment: We received comments that suggest that EPA should not allow States the opportunity to substitute NO_x reductions for the VOC reductions specifically required by section 182(c)(2)(B) of the CAA. In general, the commenter contends that methodology in EPA's NO_x Substitution Guidance is not "at least as effective" as photochemical grid modeling for making attainment demonstrations. The comment states that NO_x substitution ignores one of the Ozone Transport Assessment Group's (OTAG) key conclusions that "VOC controls are effective in reducing ozone locally and are most advantageous to urban nonattainment areas." Additionally, the commenter notes that some data suggest that progress towards attainment in urban areas may not take place, or may even be reversed, by the substitution of NO_x reductions for required VOC reductions. Finally, the commenter states that EPA should not allow NO_x substitution as part of the attainment demonstration under section 182 (c)(2)(A). In particular, the commenter is opposed to the States being allowed to utilize, carte blanche, NO_x substitution for section

182(c)(2)(A) attainment demonstrations without undergoing an additional, more rigorous analytic test that considers local conditions and potential impacts to real world attainment.

Response: The EPA disagrees with the comment that the Agency should not allow NO_x substitution under section 182(c)(2)(B), Reasonable Further Progress Demonstration. Section 182(c)(2)(C) specifically allows NO_x substitution where the resulting reductions "in ozone concentrations" are "at least equivalent" to that which would result from the VOC reductions required in the demonstration of reasonable further progress (RFP) under section 182(c)(2)(B). The second sentence of section 182(c)(2)(C) requires EPA to issue guidance "concerning the conditions under which NO_x control may be substituted for [or combined with] VOC control." In particular, the Agency is authorized to address in the guidance the appropriate amounts of VOC control and NO_x control needed, in combination, "in order to maximize the reduction in ozone air pollution." Further, the Act explicitly provides that the guidance may permit RFP demonstrations which allow a lower percentage of VOC emission reductions. In light of the entire set of language and Congress's evident intent under this subsection to maximize the opportunity for ozone reductions, EPA believes that section 182(c)(2)(C) confers on the Agency the discretion to select, for purposes of determining equivalent reductions, a percentage of NO_x emission reductions which is reasonably calculated to achieve both the ozone reduction and attainment progress goals intended by Congress. This approach is described in detail in EPA's 1993 NO_x Substitution Guidance. Based on our review of all the information submitted in these attainment demonstrations and consistent with the 1993 NO_x Substitution Guidance, EPA believes that the percentage of ozone reduction benefits achieved by application of NO_x controls is at least equivalent as that achieved by application of VOC controls because both the NO_x and VOC controls are necessary if the areas are to attain the NAAQS. That is, the basis for

equivalency is the ability of a given control strategy (i.e., any particular mix of NO_x and VOC emission reductions) to effect attainment of the ozone NAAQS by the designated attainment year (NO_x Substitution Guidance, EPA-452/R-93-015, January 1994, at page 2).

In addition to the OTAG conclusion as noted by the commenter, the States further concluded that widespread NO_x reductions are needed in order to enable many areas to attain the ozone NAAQS. EPA subsequently made the same determination through the NO_x SIP Call rulemaking. Thus, NO_x substitution is generally consistent with OTAG's and EPA's conclusions that NO_x reductions are effective in reducing ozone concentrations.

As described in the NO_x SIP call rulemaking, the OTAG process included lengthy discussions on the potential increase in local ozone concentrations in some urban areas that might be associated with a decrease in local NO_x emissions. The OTAG modeling results indicate that urban NO_x emissions decreases produce increases in ozone concentrations locally, but the magnitude, time, and location of these increases generally do not cause or contribute to high ozone concentrations. In particular, for the NO_x emissions reductions due to the NO_x SIP call budgets, EPA determined that any disbenefits are expected to be very limited compared to the extent of the air quality benefits expected from these budgets.

Regarding section 182(c)(2)(A), Attainment Demonstration, EPA believes that NO_x substitution for VOC emissions deemed to be required as "additional emission reductions" is permissible as part of the Weight of Evidence analysis. The EPA agrees with the comment that such NO_x substitution must be justified through additional analyses. For example, if model-predicted

peaks show greater improvement when low level NOx emissions are reduced versus VOC or elevated NOx emissions, then substituting an equal amount of low level NOx reductions for the otherwise required "additional emissions reductions" of VOC would be acceptable.

R. Measures Under Legal Review

Comment: We received comments asserting that because the Tier 2/Sulfur and NOx SIP call rules are under legal review EPA should not credit the attainment demonstrations with reductions from these programs.

Response: EPA disagrees with the comment. On October 27, 1998 (63 FR 57356), EPA promulgated the "Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone," commonly referred to as the NOx SIP call. On March 3, 2000, the D.C. Circuit issued its decision on the NO_x SIP Call regarding the 1-hour ozone NAAQS ruling in favor of EPA on all the major issues. See Michigan v. EPA, *supra*. On June 22, 2000, the Court ordered that we allow the States and the District of Columbia 128 days from June 22, 2000 to submit their SIPs. Accordingly, 19 States and the District of Columbia were required to submit SIPs in response to the NO_x SIP Call by October 30, 2000.¹³ On August 30, 2000, the D.C. Circuit ordered that the June 22, 2000 Order be amended to extend the deadline for implementation of the NO_x SIP Call from May 1, 2003 to May 31, 2004. In a separate rulemaking, we are addressing the Court's remand of the definition of electricity generating units, the control level for large stationary internal combustion engines and the SIP submittal and compliance dates for these actions, which

¹³October 30, 2000 is the first business day following the expiration of the 128-day period.

affect less than 10 percent of the total emission reductions called for by the NOx SIP Call.

Likewise, on February 10, 2000 (65 FR 6698), EPA promulgated the "Control of Air Pollution From New Motor Vehicles: Tier 2 Motor Vehicle Emissions Standards and Gasoline Sulfur Control Requirements," commonly referred to as the Tier 2/Sulfur rule.

S. Contingency Measures

Comment: We received comments asserting that the Post-1996 ROP and the attainment demonstration SIP lacks contingency measures as required under the CAA.

Response: EPA believes the contingency measure requirements of sections 172(c)(9) and 182(c)(9) of the CAA are independent requirements from the rate-of-progress requirements under sections 172(c)(2) and 182(c)(2)(B) and the attainment demonstration requirements of sections 172(c)(1) and 182(c)(2)(A). The contingency measure requirements are to address the possibility that an area will fail to meet a rate-of-progress milestone or will fail to attain. The contingency measure requirements have no bearing on whether a state has submitted a SIP that projects that the SIP contains enough control measures to achieve sufficient rate-of-progress towards attainment or to attain the NAAQS. The ROP SIP provides a demonstration that the ROP requirement ought to be fulfilled, but the contingency measure SIP requirements concern what will happen only if ROP is not actually achieved. The attainment demonstration SIP provides a demonstration that the attainment requirement ought to be fulfilled, but the contingency measure SIP requirements concern what will happen only if the area fails to attain. EPA acknowledges that contingency measures are a required SIP revision, but does not believe that these measures must be approved as part of an attainment demonstration. Consequently, EPA believes it can approve this attainment demonstration even though the required contingency

measures have not yet been submitted. Pennsylvania will still be required to submit contingency measures and EPA will act upon them when submitted.

T. Measures for the 1-Hour NAAQS and for Progress Toward 8-Hour NAAQS

Comment: One commenter notes that EPA has been working toward promulgation of a revised eight-hour ozone National Ambient Air Quality Standard (NAAQS) because the Administrator deemed attaining the one-hour ozone NAAQS is not adequate to protect public health.

Therefore, EPA must ensure that measures be implemented now that will be sufficient to meet the one-hour standard and that make as much progress toward implementing the eight-hour ozone standard as the requirements of the CAA and implementing regulations allow.

Response: The one-hour standard remains in effect for all of these areas and the SIPs that have been submitted are for the purpose of achieving that NAAQS. Congress has provided the States with the authority to choose the measures necessary to attain the NAAQS and EPA cannot second guess the States' choice if EPA determines that the SIP meets the requirements of the CAA. EPA believes that the SIPs for the severe areas meet the requirements for attainment demonstrations for the one-hour standard and thus, could not disapprove them even if EPA believed other control requirements might be more effective for attaining the eight-hour standard. However, EPA generally believes that emission controls implemented to attain the one-hour ozone standard will be beneficial towards attainment of the eight-hour ozone standard as well. This is particularly true regarding the implementation of NO_x emission controls resulting from EPA's NO_x SIP Call. Finally, EPA notes that although the eight-hour ozone standard has been adopted by the EPA, implementation of this standard has been delayed while certain aspects of the standard remain before the United States Circuit Court of Appeals. The

States and the EPA have yet to define the eight-hour ozone nonattainment areas and the EPA has yet to issue guidance and requirements for the implementation of the eight-hour ozone standard.

U. Other Comments

Comment: We received comments that oppose the removal of any of Pennsylvania's 67 counties from the Ozone Transport Region on the grounds that the south-central and central counties have a significant impact on intrastate transport and attainment in Philadelphia.

Response: The comment is not germane to this action. EPA is approving the attainment demonstration and Post1996 ROP plans for the Philadelphia area. EPA is not approving removal of any Pennsylvania counties from the Ozone Transport Region.

III. Final Action

A. Attainment Demonstration

EPA is fully approving the Pennsylvania's one hour ozone attainment demonstration for the Philadelphia area which was submitted on April 30, 1998, and supplemented on August 21, 1998, February 25, 2000, and July 19, 2001, including its RACM analysis and determination. The attainment demonstration meets the requirements of section 182 (c)(2) and (d) of the Act and establishes an attainment date of November 15, 2005 for the Philadelphia area.

B. Commitments

EPA is approving the Pennsylvania commitments made on July 31, 1998, February 25, 2000, and July 19, 2001. The commitments are to:

- (1) submit measures by October 31, 2001 for additional emission reductions as required in the attainment demonstration test, and to revise the SIP and motor vehicle emissions budgets by October 31, 2001 if the additional measures affect the motor vehicle emissions inventory,
- (2) revise the SIP and motor vehicle emission budgets using MOBILE6 within one year after it is issued, and
- (3) perform a mid-course review by December 31, 2003.

C. Post-1996 ROP Plan

EPA is approving Pennsylvania's Post1996 ROP plans as a SIP revision for the Philadelphia area. These revisions were submitted on April 30, 1998, July 31, 1998, and supplemented on February 25, 2000.

D. Mobile Budgets of the Control Strategy Plans

EPA is approving the following mobile budgets of the Post-1996 ROP plans and the 2005 attainment demonstration plan:

Transportation Conformity Budgets for the Philadelphia Area

Type of Control Strategy SIP	Year	VOC (TPD)	NOx (TPD)	Date of Adequacy Determination
Post-1996 ROP Plan	1999	88.6	109.6	June 23, 2000 (65 FR 36438, June 8, 2000)
Post-1996 ROP Plan	2002	69.52	93.13	June 23, 2000 (65 FR 36438, June 8, 2000)
Post-1996 ROP Plan	2005	61.76	86.42	June 23, 2000 (65 FR 36438, June 8, 2000)
Attainment Demonstration	2005	60.18	77.46	<u>[Insert date 30-days from the date of publication in the Federal Register]</u>

Please note that EPA is only approving the 2005 attainment demonstration and its current budgets because the Commonwealth has provided an enforceable commitment to revise the budgets using the MOBILE6 model within one year of EPA's release of that model. Therefore, we are limiting the duration of our approval of the current budgets only until such time as the revised budgets are found adequate. Those budgets will be more appropriate than the budgets we are approving for conformity purposes for the time being.

Similarly, EPA is only approving the 2005 attainment demonstration and its current budgets because Pennsylvania provided enforceable commitments to adopt additional measures to strengthen the attainment demonstration by October 31, 2001 and to submit revised budgets by October 31, 2001 if the additional measures affect the motor vehicle emissions inventory. Therefore, we are limiting the duration of our approval of the current budgets only until such time as any such revised budgets are found adequate. Those revised budgets will be more appropriate than the budgets we are approving for conformity purposes for the time being.

IV. Administrative Requirements

A. General Requirements

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a "significant regulatory action" and therefore is not subject to review by the Office of Management and Budget. This action merely approves state law as meeting Federal requirements and imposes no additional requirements beyond those imposed by state law. Accordingly, the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.). Because this rule

approves pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4). For the same reason, this rule also does not significantly or uniquely affect the communities of tribal governments, as specified by Executive Order 13084 (63 FR 27655, May 10, 1998). This rule will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999), because it merely approves a state rule implementing a Federal standard, and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. This rule also is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997), because it is not economically significant. In reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. In this context, in the absence of a prior existing requirement for the State to use voluntary consensus standards (VCS), EPA has no authority to disapprove a SIP submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a SIP submission, to use VCS in place of a SIP submission that otherwise satisfies the provisions of the Clean Air Act. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. As required by section 3 of Executive Order 12988 (61 FR 4729, February 7, 1996), in issuing this rule, EPA has taken the necessary steps to eliminate drafting errors and ambiguity, minimize potential litigation, and provide a clear legal standard for affected conduct. EPA has complied with Executive Order 12630 (53 FR 8859, March 15, 1988)

by examining the takings implications of the rule in accordance with the “Attorney General’s Supplemental Guidelines for the Evaluation of Risk and Avoidance of Unanticipated Takings” issued under the executive order. This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.).

B. Submission to Congress and the Comptroller General

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. This rule is not a “major rule” as defined by 5 U.S.C. 804(2).

C. Petitions for Judicial Review

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by [insert date 60 days from date of publication of this document in the Federal Register]. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial

review may be filed, and shall not postpone the effectiveness of such rule or action. This action to approve the Post-1996 ROP plan, and the one hour ozone attainment demonstration as SIP revisions for the Philadelphia-Wilmington-Trenton ozone nonattainment area submitted by the Commonwealth may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

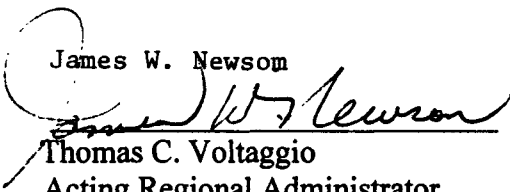
List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Hydrocarbons, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements.

Authority: 42 U.S.C. 7401 et seq.

Dated: 10/15/01

James W. Newsom


Thomas C. Voltaggio
Acting Regional Administrator,
Region III.

40 CFR part 52 is amended as follows:

PART 52 - [AMENDED]

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 et seq.

Subpart NN - PA

2. Section 52.2037 is amended by adding paragraphs (i), (j) and (k) to read as follows:

§ 52.2037 **Control strategy and rate-of-progress plans: ozone.**

* * * * *

(i) EPA approves the Commonwealth of Pennsylvania's Post1996 (ROP) plan SIP revision for milestone years 1999, 2002, and 2005 for the Pennsylvania portion of the Philadelphia-Wilmington-Trenton severe ozone nonattainment area. These revisions were submitted by the Pennsylvania Department of Environmental Protection on April 30, 1998, July 31, 1998 and supplemented on February 25, 2000.

(j) EPA approves the one hour ozone attainment demonstration SIP for the Philadelphia-Wilmington-Trenton area submitted by the Pennsylvania Department of Environmental Protection on April 30, 1998, August 21, 1998, February 25, 2000 and July 19, 2001 including its RACM analysis and determination. EPA is approving the enforceable commitments made to the attainment plan for the Philadelphia-Wilmington-Trenton severe ozone nonattainment area submitted by the Pennsylvania Department of Environmental Protection on July 31, 1998, February 25, 2000 and July 19, 2001. The enforceable commitments are to:

- (1) submit measures by October 31, 2001 for additional emission reductions as required in the attainment demonstration test, and to revise the SIP and motor vehicle emissions budgets by October 31, 2001 if the additional measures affect the motor vehicle emissions inventory,
- (2) revise the SIP and motor vehicle emission budgets using MOBILE6 within one year after it is issued, and
- (3) perform a mid-course review by December 31, 2003.

(k) EPA approves the following mobile budgets of the Post-1996 plans and the 2005 attainment plan:

Transportation Conformity Budgets for the Philadelphia Area

Type of Control Strategy SIP	Year	VOC (TPD)	NOx (TPD)	Date of Adequacy Determination
Post-1996 ROP Plan	1999	88.6	109.6	June 23, 2000 (65 FR 36438, June 8, 2000)
Post-1996 ROP Plan	2002	69.52	93.13	June 23, 2000 (65 FR 36438, June 8, 2000)
Post-1996 ROP Plan	2005	61.76	86.42	June 23, 2000 (65 FR 36438, June 8, 2000)
Attainment Demonstration	2005	60.18	77.46	<u>[Insert date 30-days from the date of publication in the Federal Register]</u>

Please note that EPA is only approving the 2005 attainment demonstration and its current budgets because the Commonwealth has provided an enforceable commitment to revise the budgets using the MOBILE6 model within one year of EPA's release of that model. Therefore, we are limiting the duration of our approval of the current budgets only until such time as the

revised budgets are found adequate. Those budgets will be more appropriate than the budgets we are approving for conformity purposes for the time being.

Similarly, EPA is only approving the 2005 attainment demonstration and its current budgets because Pennsylvania provided enforceable commitments to adopt additional measures to strengthen the attainment demonstration by October 31, 2001 and to submit revised budgets by October 31, 2001 if the additional measures affect the motor vehicle emissions inventory. Therefore, we are limiting the duration of our approval of the current budgets only until such time as any such revised budgets are found adequate. Those revised budgets will be more appropriate than the budgets we are approving for conformity purposes for the time being.